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"The Classical School, Deterrence Theory, and Zero Tolerance" An analysis of a mandatory zero tolerance sanctioning policy in relation to The Classical School of Criminology and Deterrence Theory

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**Nova Southeastern University
Criminal Justice Institute**

“The Classical School, Deterrence Theory, and Zero Tolerance”
An analysis of a mandatory zero tolerance sanctioning policy in relation to The Classical School
of Criminology and Deterrence Theory

by

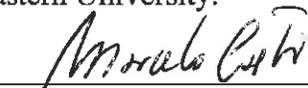
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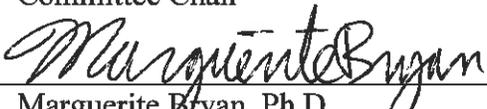
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Criminal Justice Institute of Nova Southeastern University
In Partial Fulfillment of the Requirements for the Degree of
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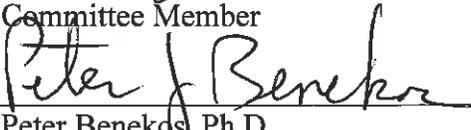
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Approval Page

This applied dissertation was submitted by, Adam Saeler, under the direction of the persons listed below. It was submitted to the Institute for Human Service, Health, and Justice and approved in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Nova Southeastern University.

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Abstract

Mandatory sentences, and especially those that promote severe detention lengths, have become a popular mechanism in the fight against crime, but are they effective? Certain Sanctions, an adult probation-based sanctioning mandate, is an example of one such mandatory policy that emphasizes harsh sanctions in order to promote reduced future criminality. The philosophy behind such a device fits well into the theoretical framework of deterrence theory in that quick, severe sanctions ought to reduce future criminality. However, little research exists regarding the effectiveness of such a mandatory probation-based sanction policy with regards to the reduction of future criminality. Furthermore, the impact of detention length, as specified by a mandatory sanctioning policy, on delineated offender types with regards to future criminality was considered. Is there a difference, with consideration to recidivism, among different types of offenders?

This paper analyzed previously collected adult probation data to determine the impact of detention length in general, as well as on specifically defined offender types, with regards to recidivism in an attempt to answer these questions. Bivariate and multivariate analytical techniques such as point biserial correlation and regression models indicated that detention days are the most significant variable with regards to recidivism and that non-drug and/or alcohol offenders were more likely to recidivate than were the drug and/or alcohol offenders.

Keywords: deterrence, detention length, offender typologies, recidivism

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Chapter 1

Background

Data from the Bureau of Justice Statistics indicated that beginning around 1963 crime rates, both for violent and property crime, began to rise at unprecedented levels. In fact from 1963 to 1964 there was an increase of over 13% for the violent crime rate in the United States and an increase of over 9% for property crime rates (United States Department of Justice, 2013). From 1964 to 1973 there was a 118.9% increase in the national violent crime rate (United States Department of Justice, 2013). It is also important to note that the violent crime rate continually increased during those years; there were no anomalies in the data that suggested a specific year may have been particularly violent or non-violent. Furthermore, the property crime rate increased by more than 70% during that same time frame. The data from the early 1960s to the early 1970s indicates why many citizens began to call for policies that were much tougher on crime and why many politicians heeded their opinions.

Further review of crime data illustrated that the trend of rising crime rates that began around 1963 continued through 1993. A three decade long period of continued rising crime rates cements the understanding of why punitive sentencing and sanctioning policies have been called for. However, review of that same data illustrated significant decreases in both violent and property crime rates beginning around 1993, about the same time that multiple legislative policies to be punitive on crime were enacted.

Table 1 highlights the changes in crime observed between 1963 and 2012. It should be noted that from 1963 to 2012 the violent crime rate in the United States increased by 130%. The violent crime rate peaked in 1993, at 747.1 per 100,000 population, which was an increase of over 344% when compared to 1963.

Table 1 also illustrates the property crime rate for the United States during that same time frame. 1963 marked the first year in a trend of increasing property crime rates for the United States. That increasing trend remained rather stable through the peak year of 1993, which is consistent with the violent crime rate. From 1963 to that peak year of 1993 the property crime rate in the United States increased by more than 135%. The property crime rate in the United States increased by just over 42% during the time frame selected, 1963 to 2012.

It should be pointed out that beginning around 1993 both the violent and the property crime rates in the United States began to consistently decrease. From 1993 to 2012 the violent crime rate in the United States dropped by approximately 48%. The property crime rate in the United States decreased at similar levels when considering the same time frame. From 1993 to 2012 the property crime rate decreased by over 39%. It is interesting to note though that during that time of consistent decreases in both violent and property crime rates considerable policy shifts had already been made or were about to take shape. Table 1, below, is an illustration of the crime rates described above.

Table 1

Violent and Property Crime Rates, per 100,000 population, in the United States since 1963

Year	Violent Crime Rate	Property Crime Rate
1963	168.2	2012.1
1964	190.6	2197.5
1973	417.4	3737.0
1974	461.1	4389.3
1983	538.1	4641.1
1984	539.9	4489.5

Year	Violent Crime Rate	Property Crime Rate
1993	747.1	4740.0
2003	475.8	3,591.2
2012	386.9	2,859.2

Note. 2012 is the last year data was available at time of retrieval. Adapted from the United States Department of Justice. (2013).

Year end 2011 census data collected by the Department of Justice indicated a decrease, by 1.4% and 0.9% respectively, in both the total number of individuals under correctional supervision as well as the total number of inmates incarcerated in prisons across the United States (Carson & Sabol, 2012; Glaze & Parks, 2012). These decreases continued a recent trend in the declining correctional population of the United States. However, there are still more than 6.9 million individuals under correctional supervision including more than 1.5 million inmates in the nation's state and federal prisons (Carson & Sabol, 2012; Glaze & Parks, 2012).

Although data highlighted the decreasing number of individuals under correctional supervision, the costs associated with that correctional supervision have continually increased to estimates between \$75 and \$100 billion dollars annually (Schmitt, Warner, & Gupta, 2010; Clear, Cole, & Reisig, 2011; Petersilia, 2003). Annual costs are typically calculated by multiplying the average daily correctional population by the average cost per inmate which in some states has increased to over \$55,000 dollars per year per inmate (Henderson & Delaney, 2012).

What is more is the fact that the contemporary economic climate is stressed further than at any time in recent memory, increases in both state and federal correctional budgets only compounds this issue. Barkow (2012) reported that the average corrections budget for the states is approximately 3.1% of their annual budgets and that figure is only expected to rise. Scott-

Hayward (2009) noted that correctional budgets currently represent the fastest growing increases in state budgetary expenses while the Federal Bureau of Prisons requested a 4.2% budgetary increase to \$6.9 billion dollars for fiscal year 2013 (Federal Prison System, 2013). While an in-depth fiscal investigation or cost-benefit analysis is outside the scope of this research, it is pertinent to note the staggering costs of incarceration as it is likely only a matter of time before substantial changes must be made.

Community corrections, such as probation, have typically offered an alternative to traditional options for policy makers that cost significantly less than incarceration while still meeting the goals of security and supervision that are essential for the specific population in question. Community corrections remain an essential tool for the criminal justice system, especially with contemporary corrections costs. Schmitt et al. (2010) estimated the cost of probation and parole supervision to be approximately \$1,300 to \$2,800 dollars per year per inmate or as Seiter (2011) suggested just under \$3.50 per day per inmate. Schmitt et al. (2010) further noted that reducing the incarceration rate for non-violent offenders by half would lower the total cost of corrections in the United States by approximately \$17 billion dollars per year. Allowing many non-violent offenders to remain in the community under probation supervision would save significant amounts of tax payer dollars. The issue is the public's perception of crime and punishment may be at odds with increased uses of community-based sanctions.

Although community corrections have been a part of the correctional process for over 150 years, the public has not always been completely accepting of its use; probation and other community corrections are often viewed as being soft on crime (Clear, Cole, & Reisig, 2011; Seiter, 2011). Being tough on crime has been a staple phrase among many citizens since the 1970s. It was during the early part of the 1970s that the criminal justice system underwent a

paradigm shift that continues to impact that system to this day. Cavender (2004) agreed, noting that it was during the 1970s that the penal policy of focusing on rehabilitation began to come under attack due to the perceived ineffectiveness. The reasoning behind much of this attack was undoubtedly the incredible increases in crime rates that the United States, at the time, was witnessing.

Problem Statement

Overall the violent crime rate in the United States increased from 168.2 per 100,000 population in 1963 to 747.1 per 100,000 population in 1993 which is an increase of over 344% (United States Department of Justice, 2013). With regards to property crime, the overall rate in the United States increased from 2,012.1 per 100,000 population in 1963 to 4,740 per 100,000 population in 1993 which is an increase of over 135% (United States Department of Justice, 2013). Without question the examination of crime rates in the United States from 1963 to 1993 illustrates a significant change in crime and subsequent victimization. It is clear to see then why the public would begin to call for policies that were much tougher on crime. It is also clear to see how criminological research and conclusions such as those often attributed to Robert Martinson (Lipton, Martinson, & Wilks, 1975) and Andrew von Hirsch (1976) would gain so much traction. The problem though, is whether or not those policy shifts towards being tougher on crime been effective.

Legislative shifts in sentencing policy.

Much of the vigor to move the criminal justice system away from the rehabilitative model that dominated the landscape during the 1960s came from the seminal work and conclusion that nothing works with regards to prison rehabilitation often attributed to solely to Robert Martinson (Andrews & Bonta, 2010; Cavender, 2004; Farabee, 2002; Lipton et al., 1975; Seiter, 2011).

Prior to Martinson and his colleague's conclusion that rehabilitative programs in the United States were ineffective, the criminal justice system in the United States focused on what could be described as a medical model with regards to criminal offenders (Clear et al., 2011; Lipton et al., 1975; Seiter, 2011). Many policy administrators and practitioners alike felt as though offenders were sick, that their criminality was an illness, and that utilizing a medical approach could alleviate a great deal of criminality. However, as Andrews and Bonta (2010) suggested, the Martinson report shifted the public's sentiment towards advocating for punishment over rehabilitation for two specific reasons.

The first of these specific reasons was based on a conclusion from Andrew von Hirsch (1976), a contemporary of Martinson. The just deserts model promoted by von Hirsch suggested that punishments should outweigh any gain to be had by a criminal act; von Hirsch's conclusion paid a great deal of reverence to the Classical School of Criminology (Andrews & Bonta, 2010; Seiter, 2011; von Hirsch, 1976). Briefly, the Classical School of Criminology focused on the rational choices and hedonistic calculus of offenders. A more detailed description of the Classical School of Criminology can be found in chapter two. Policy makers and criminal justice professionals who agreed with von Hirsch felt that punishment was "rendered noble through the inherent virtue of just desert" (Andrews & Bonta, 2010, p. 41) and thus their venture towards tougher sanctions was worthy of pursuing. Andrews and Bonta (2010) went further, suggesting that punishment, serving to outweigh any potential benefit gained by criminality, was virtuous in and of itself because it served to protect society as a general deterrent to criminality. It is pertinent to note that deterrence theory, promoted by von Hirsch and others, contrasted greatly to a second popular theory of corrections at that time, that being the medical model. That model suggested that offenders were sick and that criminality could be cured much like any other

illness through treatment (MacNamara, 1977). The three models noted, just deserts, deterrence theory, and the medical model, differed greatly in their response to criminality, and in the end it was deterrence theory that seemingly won out as noted by the prevalence of punitive sanctioning and sentencing policies highlighted throughout this text.

The second of the reasons that the get-tough-on-crime mentality was able to gain acceptance was due to the belief that severe punishment would be an effective correctional policy. Andrews and Bonta (2010) suggested that administrators at the time felt that even if rehabilitation was ineffective, punishment through incarceration could serve as enough of a deterrence to reduce criminality. Andrews and Bonta were essentially concluding that the correctional system could not guarantee effective rehabilitative programming but that it could guarantee effective punishment and incapacitation. Successful treatment may have been a myth but incapacitation was, and always is, a guarantee. Lynch (2011) agreed, noting that the sentiment at the time was due to a feeling that rehabilitation was no longer a viable option for many offenders. However, by guaranteeing safety through incapacitation, tough on crime policies did increase the overall populations of correctional facilities. The evidence of corrections costs noted previously highlights the serious negative consequences of specifically punitive crime policies.

Also born of this suggestion, that rehabilitation was ineffective, was a public demand for policy shifts at the front end of the criminal justice system that were much more harsh on offenders. The public began to voice a disapproval of any mandates or politicians that were viewed as soft on crime, thus policies were enacted to decrease the appearance of being soft on crime (Beale, 2003; Cavender, 2004; Sundt, 1998). In fact Zimring and Johnson (2006) argued that treating criminals harshly is an aspect of human nature and thus calling for tough on crime

legislation may actually be an expression of that very nature. One such get tough on crime shift that gained significant support was mandatory sentences. During the 1990s a great deal of punitive crime sentencing policy shifts were the direct result of federal funding tied to truth in sentencing initiatives (Merritt, Fain, & Turner, 2006). Truth in sentencing laws were a legislative response to the call to be tough on crime. At the core of truth in sentencing laws was the requirement that sentenced inmates would serve at least 85% of their original sentence before being eligible for release (Clear et al., 2011; Seiter, 2011).

The 1990s saw further increases in the propensity to enact and enforce policies that were viewed as tough on crime. However, the newly enacted legislation that was tough on crime was not the first appearance of mandatory sentences or tough on crime mentalities in the United States. Lardner and Love (2004) noted that mandatory sentencing legislation has been a staple for courts in the United States since the earliest days of the United States. For example, the Crimes Act of 1790 called for at least half a dozen crimes bear the sentence of death (Lardner & Love, 2004). The authors noted that these early mandatory sentences followed the popular flat time sentencing model of the 18th century (Lardner & Love, 2004). The criminal justice system, though, has evolved greatly since the earliest days of the United States; there are now fewer crimes punishable by death. That evolution, however, is not complete as numerous mandatory penalties still remain.

It was during the 1970s and early 1980s that the first significant policy shifts in sentencing, which are still felt today, were enacted. Legislators and policy makers at that time felt as though all offenders, juvenile and adult, should not be spared harsh sentences for crimes committed (Greene, 2002; Grisso, Steinberg, Woolard, Cauffman, Scott, Graham, Lexcen, Reppucci, & Schwartz, 2003; Jordan & Myers, 2007; Kuanliang, Sorensen, & Cunningham,

2008; Mears, 2001; Myers, 2003a; Myers, 2003b; Perelman & Clements, 2009; Schlesinger, 2008; Singer & McDowall, 1988). The Sentencing Reform Act (SRA) of 1984 and the larger Comprehensive Crime Control Act of 1984 which the SRA was a part of, was a specific example of a legislative shift in sentencing policy that embodied the get-tough-on-crime mentality that many in the citizenry were calling for (Wilkins, Newton, & Steer, 1993). The SRA and the greater Comprehensive Crime Control Act were established as a part of President Reagan's war on drugs which was a further example of a harsh legislative shift. During the early 1980s, as noted above, there was a significant increase in crime throughout the United States. In an effort to combat this crime, politicians enacted a series of sentencing reforms, such as the SRA and the Comprehensive Crime Control Act, to be tough on the criminals of the day. The crime data highlighted previously coincides with the perceived need of these sentencing shifts.

A second legislative action that coincided both with the rising crime rates and the mentality towards crime popular during the 1980s and 1990s was the move towards punishing habitual offenders with life sentences. Washington State's three strikes law, passed in 1993, was the first piece of legislation that mandated a life sentence for habitual offenders (Chen; 2008; Greene, 2002). That three strikes legislation was a watershed moment for punitive crime legislation, but the paradigm shift ushered in by Washington State may have been too late in having a significant impact on crime rates. The legislation itself was passed at a time when crime was peaking, and actually about to substantially decrease. In fact from 1993 to 2011 violent crime rates in the United States dropped by more than 48% and property crime rates dropped by more than 38% (United States Department of Justice, 2013). Washington's three strikes law further illustrates the history of mandatory and zero tolerance sentencing policy in the United States. The law itself, due to the popular political climate and the public's fear of crime, would

usher in further practice of mandatory and zero tolerance sentencing policies with little regard for the effectiveness of those policies (Kovandzic, Sloan, & Vieraitis, 2002; Shichor, 1997).

Contemporary crime rates are at levels more in line with the early 1970s than with those crime rates of the 1980s and 1990s but the legislation enacted to fight rising crime levels remain in effect.

Alternative Reasoning to Incarceration Increases.

Legislative shifts, such as those noted previously, undoubtedly had a significant impact on the increases in the incarceration rate. However, there were likely alternative explanations or alternative variables that impacted those incarcerations rates beyond the noted legislative shifts. It is worthwhile then to investigate some of those alternative explanations in an effort to strengthen this research as well as to add credence to the findings garnered from the analysis to be highlighted in later chapters. It is noted that the following research regarding the alternative causes to incarceration increases is a bit dated, especially compared to the completion of this research. However, much of the research highlighted in the following text was completed during the substantial increases in the use of incarceration and tougher sentences. Furthermore, it should be noted that these potential alternative causal factors will only receive a cursory review as each alternative variable could represent entire research study in itself.

Violent crimes and victimization.

First among these alternative explanations as to why there is such an increased emphasis on the use of get tough sanctions is the impact that violent crime may have had. Mauer (2003), based on a comparative review of international incarceration rates with consideration to those rates' trends and causal factors, suggested that victimization as a whole in the United States is about average when compared to seventeen other industrialized countries. Tonry (1999) agreed

with the sentiment that violent crime rates are a driving factor in the noticed disparity between the overall crime rate of the United States and other industrialized countries. Mauer (2003) noted that individuals living in the United States are far more likely, at the time of the study, to be victims of murder; the author noted that the murder rate in 2001 was about four times that of most Western European nations. The author noted that the proliferation of firearms in the United States, with no strong gun control laws in place, may have been a casual factor in the noted gap in violent victimization. Tonry (1999) also agreed with the impact that gun violence has likely had on violent crime rates in general. Tonry (1999) concluded that there is a straightforward correlation between high crime rates and high incarceration rates, thus the importance of identifying other causal factors.

Related to violent victimization and increases in the use of incarceration and incarceration rates is the impact that the switch from indeterminate to determinate sentencing structures have had. Zimring and Hawkins (1994) suggested that the incredible growth in California's prison population during the early 1990s could directly be related to the changes in sentencing structures that was implemented during the late 1970s. However, the authors shied away from suggesting that any one piece of legislation, with regards to changes in sentencing options, lead to the incredible increases in incarceration in California. Zimring and Hawkins (1994) did note that increases in felony offenses during the period they reviewed likely had a significant impact on incarceration use. Much like the observations from Tonry and Mauer referenced previously, Zimring and Hawkins were suggesting that increases in serious criminal offenses may be the simplest explanation as to why there was such an increase in the use of incarceration during the 1990s. Zimring and Hawkins (1994) noted that, with regards to get tough on crime sentencing policies, that larger jurisdictions in California may have proliferated

the sentiment to the rest of the state. The authors suggested that, even though there was a noted increase in criminal offenses, those increases in criminal offenses were not a representation of all of California (Zimring & Hawkins, 1994). Public perception may have driven California to adopt tough sentences based on information specifically from Los Angeles County (Zimring & Hawkins, 1994). This suggestion fits well into the discussion of the use of tough on crime policies noted previously. Furthermore, the suggestion, from research conducted during significant increases in crime rates and incarceration increases, that it may simply have been those increases in crime commission that lead directly to increases in the use of incarceration are a viable alternative to this research. There are many possible reasons why the use of get tough on crime policies became so popular and were utilized so widely; increased violent victimization and crime increases in general might be the most obvious of those reasons.

Drug offenses.

Tonry (1999) suggested that a primary reason that incarceration rates are so high in the United States is that public opinion has driven politicians to be increasingly tough on criminals. The author noted that fear of victimization and drugs are the two leading causes of this increased fervor among the general public (Tonry, 1999). This increased attention to drug offenders from the public is likely driven by the fact that, as Tonry (1999) noted, drug offenses are generally viewed as being both immoral and socially destructive. Harrison (2001) agreed, suggesting that the significant increase in the use of incarceration that was noticed first during the mid to late 1980s may have been solely caused by the drug war that the United States has been engaged in since the beginning of the 1980s. Harrison (2001) reported that, because of the war on drugs, drug offenders are now much more likely to be found guilty and subsequently sentenced to prison than they ever were previously. It would be difficult, if not impossible, to refute the

suggestion that the war on drugs has had a significant impact on the use of incarceration. The use of prison as a sentenced has increased at similar rates as the overall crime rates that were identified in Table 1. Furthermore, the subject of drug offenses and increased incarceration rates could easily represent its own lengthy research text. Thus, it might be worth simply concluding that drug offenses, much like the other alternative variables mentioned, may have been a primary force behind the increased use of incarceration beginning especially during the 1980s.

Class inequality.

Pettit and Western (2004) suggested that crime increases may be tied directly to the limited economic and achievement issues of young minority males. The authors noted that these conditions of limited opportunities likely compounded the “stigma of social marginality and provoked the scrutiny of criminal justice authorities” (Pettit & Western, 2004, p. 152). The authors highlighted the noted increases and gaps in minority representation among those incarcerated in the United States, which have been well documented in criminological research, as evidence to this point. Pettit and Western (2004) point to the racial threat theory as a potential cause for the noted minority over representation in correctional facilities; the postulation that minority offenders are somehow more troublesome and the subsequent treatment based on this belief may have also led to increased use of get tough on crime policies. Regardless of the exact reasons that have led to the disproportionate representation of minority offenders in correctional facilities in the United States, the fact remains that there is an incredible misrepresentation of all minority groups (Lyons & Pettit, 2011; Mauer, 2011; Mechoulan, 2011; Pettit & Western, 2004). Mauer (2011) examined potential causal factors for the observed disproportionate representation of minorities in the corrections system. The author noted that an overrepresentation of minorities as victims, disparate law enforcement practices including prosecution and sentencing, parole

opportunities, and other biased decision making along the law enforcement continuum all likely lead to disproportionate minority representation in the corrections system (Mauer, 2011). This overrepresentation of minorities in the criminal justice system, especially with regards to sentencing, could very well account for at least some of the increased use of get tough on crime policies and incarceration in general. This alternative may be especially worth investigating in the jurisdiction under review in this research as Caucasians represent an overwhelming majority of those living in the jurisdiction. Racial breakdown of those offenders involved in Certain Sanctions may speak to the validity of this potential alternative.

Other social factors.

Other societal factors that may have had an impact on the increased use of tough on crime sentences and incarceration include unemployment and low wages, educational achievement, and other general restrictions on political and social rights (Pettit & Western, 2004). Mechoulan (2011) noted the importance of socioeconomic status with regards to the likelihood of incarceration; the author reported that incarceration is especially likely to impact individuals from lower socioeconomic backgrounds. Pettit and Western (2004) and Lyons and Pettit (2011) both suggested that minorities may be impacted more by their initial disadvantage with regards to economic opportunities when compared to their Caucasian counterparts. Western, Kleykamp, and Rosefeld (2006) agreed with the idea that discrepancies exist not only along racial lines, but also along economic and educational lines as well when considering those admitted to prison. The authors highlighted the discrepancy in educational achievement of those admitted to prison compared to the general public; education achievement of inmates was considerably lower than the general population (Western, Kleykamp, & Rosenfeld, 2006). Furthermore, the authors suggested that falling wages and unemployment, of considerable contemporary concern, may

have increased the likelihood of incarceration among the disadvantaged in today's society (Western, Kleykamp, & Rosenfeld, 2006). With little or no available law abiding opportunities to be successful, the disadvantaged may turn to crime; thus strain theory may also be an acceptable alternative explanation to rising rates of incarceration. A discussion of the impact that socioeconomic status and wealth have on incarceration could fill an entire text. It remains important to note this perspective as a potential alternative to increased use of get tough polices, but this cursory review will suffice for purposes of this research. Furthermore, the suggestion that incarceration negatively and disproportionately impacts the poor is timely as the economic conditions of the country remain unstable, at best. The proposition that the system as a whole may impact the poor differently than it impacts the wealthy is a consideration worth noting as a variable that may have impacted the use of tough sanctions that is not under direct investigation as part of this research.

Certain sanctions, a policy shift in probation sanctioning.

A direct descendent of those initial mandatory sentencing policies are zero tolerance sanctioning policies for not only offenders sentenced to correctional facilities but also for offenders sentenced to community based sanctions. An example of such a zero tolerance sanctioning policy for adult probationers has been utilized in ABC County since 2002. The policy, known as Certain Sanctions or CS, was developed as a response to the perceived subjective nature of sanctioning of adult probationers in ABC County. Administrators viewed such a mandatory policy as an acceptable alternative to traditional probationary practices. It was also the intention of those who developed CS to implement a policy that would stress the seriousness of the probation process as a whole with special consideration to any necessary sanctions. Policy administrators at the time felt that by coming down hard on probationers for

even the most minor of violations, by emphasizing detention early on in the process, would result in a reduction in the overall number of days detained, violations accrued, and revocations. This model is very much based in deterrence theory and the Classical School of Criminology. By allowing the offenders to make their own decisions while on probation, with the acknowledgement that certain, swift, and severe sanctions would follow any miscue, would fit the exact definition of deterrence theory and the Classical School of Criminology.

Briefly it may be beneficial to provide an overview of demographic information for the county selected for the research study. ABC County, according to the 2010 census, is home to 280,566 inhabitants. A full 77% of those 280,566 are over the age 18 which is within the jurisdiction of adult probation. Forty-nine percent of the population is male, 51% is female. The demographic information pertinent to this study (as gender and race will be utilized as data variables within regression models) is noted in Table 2.

Table 2

ABC County Demographics

Race	Count	Percent of Population
White	247,569	88.2
Black or African American	20,155	7.2
American Indian and Alaska Native	566	0.2
Asian	3,077	1.1
Native Hawaiian and Other Pacific Islander	90	0.0
Some Other Race	3,231	1.2

Note. Adapted from the United States Census Bureau. (2013).

Sentencing options and their deterrent effect.

Although CS is a zero tolerance sanctioning mandate, it remains only operational for adult probationers. Noted previously is the fact that probation is a form of community corrections which have been a sentencing option for approximately 150 years, but whether or not community corrections are taken seriously by offenders and whether they are effective when comparing them to traditional sentencing options may not be clear. The existing knowledge base regarding probation and community sanctions is vast yet essential to review for evaluation purposes. Furthermore, the knowledge base regarding treatment and graduated sanctions is also important to review as this research study of certain sanctions relates directly to both.

One of the primary goals of any punishment is deterrence. Whether general or specific, a sanction should deter individuals from committing a criminal act. This relationship is not only the basis for the Classical School of Criminology, but it is also the basis for deterrence theory and CS. One of the original intentions of CS was to reduce the number of future violations, and by extension future criminality, by coming down hard on offenders for even the most minor violations. The objective was that offenders would realize that the probation department was serious regarding violations because of the severe ramifications imposed by CS; this interpretation would then lead directly to deterrence. This intent of CS fits well with existing literature on deterrence and the effects of punishment on the prevention of crime. Braga and Weisburd (2012) noted that much of the existing literature available on the evaluation of deterrence and punishment focuses on the certainty, swiftness, and severity of punishment. However, scholars and practitioners alike may associate the importance of deterrence and the implications of punishment with probation, but probationers may not always share the same view.

Applegate, Smith, Sitren, and Springer (2009) surveyed offenders sentenced to probation in order to review their perceptions regarding the effectiveness and purpose of probation as a sanction. By extension the authors also reviewed the probationers' feelings regarding the "traditional goals of corrections: rehabilitation, deterrence, incapacitation, and retribution" (Applegate et al., 2009, p. 80). Central to effectiveness of punishment is the direct association of said punishment with the behavior that initiated the reaction. If the sanction is not associated with a specific act then the relationship is lost. Paramount to the effectiveness of punishment is the offender's perception of the reasoning behind the punishment. If the offender who received the sanction views that sanction as unjust or unfair then a sense of injustice can result. CS does not always allow for specifically tailored sanctions which may further the perceptions of injustice and consternation felt by the sentenced offender. Applegate and colleagues (2009) highlighted research conducted by behavioral psychologists that suggests punishment can lead to anger and resentment if the punishment is not perceived to be just and deserved. Furthermore, mandatory and zero tolerance sentences and sanctions, like CS, are not likely to allow for vast opportunities of treatment which may further feelings of resentment from the offender. Detention alone does not offer a lot of treatment options and thus not many options to break addictions which is a specific characteristic of the many within the CS population. These facts can be seriously detrimental to the effectiveness of sanctions due to offender perceptions of the sanctions.

Results of the surveys regarding offender perceptions of probation conducted by Applegate et al. (2009) indicated that over 90% of respondents either agreed or strongly agreed that they would rather give up criminality than receive probation again. Furthermore, a majority of probationers surveyed noted a link between being on probation and subsequent personal

growth; however, a majority of respondents also noted that there was no point in probation (Applegate et al., 2009). The authors also noted that almost half of respondents suggested that probation did little good for them (Applegate et al., 2009). The results of this study form the foundation of the perception of experienced punishment derived from probation. Since CS is an adult probation based sanction, the potential punishment inflicted by straight probation is important to review.

Offender perceptions of probation, as measured by Applegate and colleagues (2009) illustrate a complex relationship. Respondents reported significant contempt for probation but positive linkages between probation and personal growth. Furthermore, the respondents suggested that there was little or no point to probation. Based on the research highlighted it appears as though there is a great deal of missed opportunity with regards to probation and sentenced offenders. Probation, as a community sanction, should be better situated to offer offenders treatment opportunities when compared to traditional correctional detention. However, when zero tolerance mandates are tied to probation sentences, those treatment opportunities will likely be lost in favor of harsh sanctions, most notably detention stays. Applegate and others (2009) addressed the potential impact zero tolerance sentencing policies have had on offenders when they noted the importance of addressing anger and resentment when considering punishment opportunities. This sentiment is juxtaposed with respondents' mixed attitudes towards probation, leading toward that aforementioned missed opportunity of effective punishment and treatment. Guastaferrero and Daigle (2012) agreed with the research findings of Applegate et al., noting that overly harsh sanctions are often unnecessary and counter effective. It appears that sanctions that are perceived as unsympathetic, due to their zero tolerance nature, are met with feelings of injustice by probationers due to their perceived lack of individuality.

In an effort to reduce the scorn and injustice offenders may feel towards unfair sanctioning options, policy makers might resort to graduated sanctions to emphasize treatment and just punishments. Guastafarro and Daigle (2012) highlighted the importance of the use of graduated sanctions when attempting to change behavior by noting that excessive punishment often lacks clarity, consistency, and effective communication. Guastafarro and Daigle (2012) further noted that graduated sanctions have a lengthy history in the criminal justice system as they are a key element to the deterrence theory. The authors also suggested that drug courts fit well into this model as they often increase sanction severity in response to continued undesirable behavior (Guastafarro & Daigle, 2012). Although drug courts are outside the direct scope of this research it is essential to note the importance of treatment with regards to sanctioning alternatives such as drug courts.

Brown, Allison, and Nieto (2010) noted that treatment has been found to reduce recidivism. Guastafarro and Daigle (2012) stated that multiple programming aspects, as opposed to incarceration only, improve desirable outcomes; offenders in treatment rather than incarceration only are also more likely to complete treatment. Furthermore, when treatment is the focus of an offender's sentencing plan it is believed that the offenders will eventually develop healthier lifestyles that are both drug and crime free (Brown, Allison, & Nieto, 2010; Gottfredson, Najaka, & Kearley, 2003). Only by changing lifestyle trends will an individual be able to effectively and completely move away from criminality.

An example of the use of probation based treatment entwined with sanction based decision making is Hawaii's HOPE initiative. HOPE (Hawaii Opportunity Probation with Enforcement) is similar to CS in that the initiative attempts to reduce violations and future criminality by implementing certain and swift sanctions its probationers (Hawken & Kleiman,

2009). HOPE was implemented due to similar reasoning when considering CS. Policy administrators in Hawaii developed HOPE due high rates of noncompliance of probationers mixed with limited capacity of probation officers to enforce compliance in a swift and certain manner (Hawken & Kleiman, 2009). Detailed outcomes from Hawaii HOPE can be found in chapter two.

Finally there is the issue of the effect that days detained has on future criminality. Smith and colleagues (2002) conducted multiple meta-analyses and found that increased sanctions had no positive effect on future criminality. Furthermore, the meta-analyses conducted by Smith et al. (2002), found that longer detention lengths in institutional settings, as opposed to community based settings, often led to increases in future criminality rather than decreases. It seems apparent that detention length and harsh sanctions may not have the intended consequences that policy administrators hoped for.

Dissertation Goal

The goal of this research study was to explore the effectiveness of a zero tolerance sentencing policy, specifically the detention length imposed by that policy, for probationers with consideration to deterrence theory and its effect on drug and/or alcohol and non-drug and/or alcohol offenders. Zhang (2003) noted that results from the Arrestee Drug Abuse Monitoring Program (ADAM) that over 70% of arrested males in 2003 tested positive for at least one illicit drug. Thus the importance of specifically considering drug and/or alcohol offenders and non-drug and/or alcohol offenders when reviewing a zero tolerance sanction policy. Increases in crime rates noted above include significant increases in drug arrests, but are increasingly severe sanctions effective for substance abusers? Furthermore, emphasis was placed on the impact that sanctions, by way of detention days especially, have on future law enforcement interactions of

the two identified populations. Future law enforcement interactions was operationalized in a manner to include any arrests or probation violation; the number of days detained for each individual was considered with regards to the number of days detained. CS has been implemented in ABC County since 2000 which allowed for nine years of data for aggregate evaluation for purposes of this study. CS is evaluated on an annual basis, but those annual evaluations are significantly limited when considering conclusions regarding the overall effectiveness of CS. Thus, the need for this ex-post facto study. Again, the intent of the study was to determine the impact that the various aspects of deterrence theory, most notable sanction severity, have on a population of probationers. How does the severity of sanctions, identified as longer detention lengths, impact those probationers? Is there a measureable difference in the impact of severity on drug and/or alcohol offenders versus non-drug and/or alcohol offenders? These questions highlight the core focus of this research, that being an applicable probation-based examination of one of the primary facets of deterrence theory. Findings from this test of deterrence theory may be able to be generalized to the greater discussion of the usefulness of mandatory sentencing.

Given the sample size of this study and the longitudinal nature of the data, any conclusions might be able to be generalized to at least a population of probationers from a county similar in size and demographics to ABC County. This research will also add to criminal justice knowledge on the effectiveness of sanctions that eliminate judicial discretion whether by the use of mandatory sentences or zero tolerance policies. Furthermore, this study is timely as Eric Holder, the Attorney General of the United States, recently called for sentencing reform that would bring significant changes to mandatory sentencing policies (Roberts, 2013).

Relevance and Significance

The scope of this study builds upon and extends the knowledge base of mandatory sentencing policies with specific consideration of the impact of detention length on future criminality. First, this study gauged the effectiveness of a probation based mandatory sanctioning policy that focuses on detention, notably CS. It should be noted that mandatory sentencing and zero tolerance sanctioning policies affect the entire criminal justice system in a myriad of ways. The court system maintains a rather traditional dynamic between the police, the courts, and corrections. Specifically within the court there are traditional dynamics between the judge, prosecutor, and defense. However, if a specific policy were able to significantly disrupt these dynamics, the entire criminal justice system could suffer the consequences. Such relationships within specific systems are known as system hydraulics or hydraulic displacement (Bushway & Piehl, 2007). In such instances even the most minor policy changes to such structured system can have significant impacts on the entire system (Bushway & Piehl, 2007; Merritt et al., 2006). By mandating a zero tolerance or mandatory sentencing policy, such as CS, the entire criminal justice process is considerably altered. Such a policy shift should then require in-depth research regarding its effectiveness to ensure that the disruption was warranted.

Second, as Roberts (2003) stated, there is limited public knowledge of mandatory penalties which suggests the importance of evaluations of policies such as Certain Sanctions. Thus, this study will also examine the effectiveness of a zero tolerance sanctioning policy on adult probationers. With crime rates increasing at previously unprecedented levels, policy administrators in the United States had to respond, but has that response proven to be effective? Crime rates, both for violent and property crime, have generally decreased since 1993. In fact, by 2011 violent crime rates per 100,000 population had decreased by over 48% while property

crime rates per 100,000 population decreased by over 38% when compared to peak years in the early 1990s (United States Department of Justice, 2013). Have mandatory policies had a beneficial effect on crime rates? This research study will address this issue as effectiveness will be partially measured by the rates at which offenders sentenced under CS commit future criminality.

Barriers and Issues

The major barrier to the research is relying on available data to determine the overall effectiveness of CS. A carefully operationalized measure of the effectiveness of CS is important for the efficacy to the proposed research. Careful selection of statistical analysis was completed to ensure that the data is valid. Finally, consideration was given to the database to make sure that the data is accurate, consistent, and free of errors.

Limitations and Delimitations

The primary limitation to this research study is the data itself. CS data is part of an ongoing annual evaluation. Thus, while the data has been routinely collected for over nine years, questions may be raised about the collection and recording techniques. During the study time frame at least four separate individuals have recorded the data. However, it should be noted that the data variables and general framework of the database have remained the same. It is essential though to acknowledge the potential limitations due to the data.

A further possible issue with the available data and the subsequent research is the possibility for treatment misidentification. Bachman and Schutt (2011) identified treatment misidentification as a situation when it is not the treatment that causes an outcome but rather some rival factors that the research was not able to identify. Examples of such factors might include outside treatment procured by the clientele that was not noted by the available data, the

impact that a client's family life may have had on the outcomes, and the employment situation of each individual client among many other possibilities. This type of situation is likely to occur in at least some of the cases due to the population size and the length of time under review.

Generalizability was also a concern for the researcher as the population under review may be subject to the demographic limitations noted in Table 2. ABC County is not representative of minorities and thus the findings may be limited due to the demographics of the population. Furthermore, turnover has occurred in both the judges and the chief adult probation officers during the implementation of CS. It should be noted though that this maturation is limited to only two judges and two chief probation officers. Any differences in opinion or policy will likely have little impact on the results of the analyses as the policy itself is mandatory in nature. The policy itself would limit the availability of inclusion of personal opinions or stances from either judge or chief probation officer; the very nature of the mandated, zero tolerance policy would limit the impact that individuality from top administrators would have on the outcomes for sentenced offenders.

Net widening may also present a limitation to the findings of this study. The effect of an additional mandatory sentencing program for adult probationers on the overall sentencing method of the judges may not be measureable. By adding an intensive probationary mandate though, it is likely that some individuals who would not typically need to receive such intensive programming were included in CS. It is critical to note the potential impact of net widening when considering this population for research and evaluation purposes. Related directly to net widening is the delineation of offenders into two main groups for analysis. Consolidating all offenders within the population into two main groups likely increased the chances for error as the two categories are considerably broad. Categorizing the available population into either drug

and/or alcohol offender and non-drug and/or alcohol offenders lumps many types of offenders together which could impact the findings. For example, the non-drug and/or alcohol offenders category includes offenses against the person, such as assault, and property crimes whereas the drug and/or alcohol grouping only includes those offenses directly related to substance abuse.

Potential issues of delimitations include the fact that the study is based solely on adult probationers sentenced to a specific zero tolerance sanctioning policy and thus generalizability to a greater population of non-probationary individuals sentenced under other zero tolerance and mandatory policies may be difficult. Furthermore, the demographics of the research subjects may also present a delimitation issue for the same reasons noted previously. Finally, there is no comparison group of non-CS or traditional probationers as part of this research. The author intended to gauge effectiveness of a group of individuals sentenced under a zero tolerance/mandatory policy by measuring recidivism as arrests post sanctioning mandate. Recidivism will be measured by comparing the number of law enforcement interactions post sanctioning mandate with the number of days detained as part of probationary sanctions when controlling for offense types as well as controlling for whether the detention length qualified as severe. Severe sentences, for purposes of this research, are operationalized as increasingly longer detention stays. Any form of interaction with law enforcement that results in an interaction with the court system is considered recidivism. Sentence severity is operationalized as longer detention stays. See the identified research questions and hypothesis near the end of chapter two for review.

Definition of Terms

It is necessary to define a few specific terms that will be utilized in this study. First and foremost among these terms is effectiveness. The notion of effectiveness is difficult to

conceptualize, but it is the primary gauge of whether or not CS is working. Thus for the purposes of this study “effectiveness” will be somewhat of a bifurcated definition. Effectiveness will be measured as no interactions with law enforcement by CS probationers within one calendar year of CS completion while maintaining interest in the offense type and in the severity of the detention length. Detention length is the primary variable of interest for this study as its continuous nature allows for straightforward regression analysis with regards to offense type. Thus, effectiveness would be indicated if severe sanctions, regardless of offense type, eliminate recidivism within one year of detention completion as illustrated by the results from regression analysis.

Further definition considerations include the terms zero tolerance and mandatory sentences. Zero tolerance sentences and zero tolerance sanctions may conjure specific images for individual readers. The same can be said for mandatory sentencing or sanctioning mandates. For purposes of this study the two terms will be interchangeable as both seriously reduce the amount of sentencing or sanctioning discretion available to a sentencing court. It should also be noted that sentencing and sanctioning may be interchanged throughout this text. While the two have separate definitions as standalone terms, the intent of the two when conjoined with the terms zero tolerance or mandatory are similar. Sentencing is the punishment imposed by a judge for a criminal offense. Sanctioning is the punishment imposed by a judge for violating a condition of probation, whether due to a criminal offense or a probationary technical offense. However, with the addition of zero tolerance prior to sentencing or sanctioning, the definitions share a key characteristics, that being the lack of discretion. Discretion is key to both mandatory sentencing/sanctioning and zero tolerance sentencing/sanctioning mandates, thus the lack of discretion is what makes the two interchangeable (Cano & Spohn, 2012). Also related to the

consideration of sanctions and sentences is the detention severity or length served by each client. Detention length or severity will be continually measured by days detained. The more days detained the more severe the sentence or sanction. It should also be pointed out that detention stays will be directly associated with mandatory policies as this research emphasizes those mandatory policies that emphasize the use of detention as a tool to reduce criminality.

Finally, a key term/s for data analysis is what the presenting offense categories will be utilized. The replication of offenses similar to an individual's presenting offense, or the offender's original offense, will be a key indicator of the effectiveness of any mandate, thus it will also be utilized in this study. The presenting offense categories utilized are drug and/or alcohol offenses and non-drug and/or alcohol offenses. Drug and/or alcohol offenses have been conjoined due to the nature of the offenses and the chemical dependence often attributed to these types of offenders. Offenders categorized under this grouping committed a direct drug and/or alcohol offense such as DUI, possession, or possession with the intent to deliver among many other. Non-drug and/or alcohol offenses comprised all other presenting offenses types and included simple assault, theft, burglary, and bad checks among many others. There was not inference made as to whether or not non-drug and/or alcohol offenses had a relation to drugs and/or alcohol. For instance, there was no consideration as to the intent of a burglar, i.e. paying for drugs.

Summary

The question that lies at the heart of this study is whether or not a mandatory, zero tolerance sanctioning policy specific to adult probationers in ABC County is effective with regards to the reduction of future crimes when controlling for detention length and offense type. This question is of central concern to this study as an in-depth evaluation of the available

aggregate CS data has yet to be completed. The intent is to review and analyze the data to determine if CS has met its charge as an extension of deterrence theory and the Classical School of Criminology. Has this emphasis on being tough on offenders succeeded in reducing the propensity to commit future acts of criminality? Furthermore, have longer detention lengths positively affected individuals when compared to shorter detention sentences? These questions will add to the existing knowledge base of criminal justice as they speak directly to the success that mandatory, zero tolerance policies have had on adult probationers.

Organization of the total dissertation

Chapter two provides a review of the literature on the effect of mandatory sentencing and sanctioning policies on recidivism, detention lengths and recidivism, and the effectiveness of treatment alternatives with regards to recidivism. A discussion of the theoretical framework of Certain Sanctions, that being deterrence theory and the Classical School of Criminology follows the review of the pertinent literature. A more detailed investigation into the sentencing policy shifts will also be provided. Finally, a review of existing research with regards to research methods utilized therein will be provided. This review of previously completed research will point to effective methodologies and findings and potentially flawed methodologies which is useful to consider when reviewing this research. A review of effective methodologies and their subsequent findings will allow the research to compare findings from this proposed research so to add to the overall knowledge base of mandatory sentencing effectiveness. Reviewing potentially flawed methodologies, or at least the limitations noted in previously conducted research, will allow the author to avoid the same mistakes as other researchers or to address previously noted limitations.

Chapter three provides the reader with a description of the data, variables, and analytical tools utilized for this study. This chapter also describes, in detail, the population and conceptualized variables utilized in the research. Chapter four includes the data and findings from the study. Finally, chapter five includes a discussion, conclusions, limitations and implications of the complete study.

Chapter 2

Review of the Literature

Criminological theory.

The theoretical framework of CS and this research project, that being the investigation of the impact of detention length on recidivism, is based on the Classical School of Criminology and deterrence theory. The existing literature that focuses on the Classical School is vast to say the least; however it is essential to provide a brief summary of some of the available literature to establish the theoretical framework of this research project. With regards to theory, CS is most related to both deterrence theory and the philosophy of the Classical School of Criminology in that it promotes swift, certain, and severe sanctions in an effort to outweigh any potential benefits to be gained via a criminal act. The concept itself is based heavily in the philosophical writings regarding punishment and the law authored by Cesare Beccaria and Jeremy Bentham. The two philosophers hypothesized that crimes were committed out of rational choices and thus those crimes could be deterred by introducing a significant variable to that choice process (Clear, Cole, & Reisig, 2011; Curran & Renzetti, 2001; Harcourt, 2012; Nagin & Pepper, 2012; Paternoster, 2010; Seiter, 2011).

That significant variable introduced into the rational choice process of a potential criminal actor is the punishment imposed for that specific action. Beccaria and Bentham postulated that any potential benefits gained from the criminal act would be weighed against the negative consequences of the defined sanctions of that action; if the negative consequences outweighed the potential benefits then any rational man would not commit the criminal act (Akers, 1990; Clear et al., 2011; Curran & Renzetti, 2001; Harcourt, 2012; Nagin & Pepper, 2012; Paternoster, 2010; Seiter, 2011). Beccaria related the theory best when considering

robbery: “He who endeavors to enrich himself with the property of another should be deprived of part of his own” (Beccaria, 1764/2009, p. 20).

However, Beccaria did not necessarily support specifically ruthless punishments as he emphasized the importance of inescapability with regards to punishment as he felt such punishments were most effective (Curran & Renzetti, 2001). Beccaria also felt that punishment is necessary in modern societies as human beings are generally self-serving and thus they will always try to maximize their pleasure in the absence of checks and balances (Akers, 1990; Beccaria, 1764/2009; Curran & Renzetti, 2001; Harcourt, 2012). Beccaria also suggested that laws provided the opportunity for stable society, and that swift, certain, and severe punishments that were in the best interests of deterrence and not vengeance or retribution, only strengthened the prescribed laws and subsequently society at large (Beccaria, 1764/2009; Clear et al., 2011; Curran & Renzetti, 2001). It is interesting to note that Beccaria opposed the death penalty due specifically to the reasons that punishment should not be vengeful and overly harsh when compared to the crime committed (Curran & Renzetti, 2001). Also, it is likely that Beccaria opposed the death penalty due to the fact that it is ineffective as a punishment. Beccaria believed that the reasoning for punishment should focus solely on deterrence. Although the death penalty is particularly useful when considering specific deterrence, the significant knowledge base currently available regarding general deterrence has continually provided mixed findings at best (Radelet & Akers, 1996; Siennick, 2012; Sutherland, 1925).

Jeremy Bentham, a contemporary of Beccaria, agreed with many of Beccaria’s suggestions, especially when considering what is likely the driving force behind all human interactions, that being the pursuit of pleasure and avoidance of pain (Akers, 1990; Bentham

1987/2004; Clear, et al., 2011; Curran & Renzetti, 2001; Nagin & Pogarsky, 2001; Seiter, 2011).

Bentham's own words were more eloquent; he suggested that:

“It is vain to talk of the interest of the community, without understanding what is the interest of the individual. A thing is said to promote the interest, of to be for the interest, of an individual, when it tends to add to the sum total of his pleasures: or, what comes to the same thing, to diminish the sum total of his pains”
(Bentham, 1987/2004, p. 66).

This hypothesis led Bentham to coin the term hedonistic calculus, which consequently became the term often associated with the Classical School of Criminology and the process of striving for the most amount of pleasure while avoiding any pain (Clear et al., 2011; Seiter, 2011).

Bentham also agreed with Beccaria in that the central goal of any punishment should be deterrence and not retribution or vengeance. Thus, if deterrence could not be achieved then punishment, according to Bentham, should generally be avoided (Bentham, 1987/2004; Clear et al., 2011; Curran & Renzetti, 2001).

When considering CS and the Classical School observers may see a great deal of overlap between the intention of CS and the theories hypothesized by Beccaria and Bentham. First among these overlaps is the importance of deterrence. Punishments, as Beccaria and Bentham noted, should only be utilized when they are likely to deter an individual from committing a prohibited act. An original goal of CS was just that, to persuade individuals to desist from criminality by using threats of punishments. CS, therefore, is very much the practice of the theories hypothesized by Beccaria and Bentham. Furthermore, CS utilizes certain, swift, and severe sanctions which are central to the use of allotted punishments under the umbrella of the Classical School of Criminology. What is more is that the zero tolerance aspect of CS emphasized a uniform approach to the use of sanctions. If an individual commits a crime there is no room for consideration of individual circumstances. Beccaria would agree with such a

mandate as he stressed the importance of judges imposing standardized penalties (Curran & Renzetti, 2001). However, when considering Beccaria, Bentham, and CS, the question of the effectiveness of sanctions must be asked. Beccaria and Bentham both suggested that punishments were of little use if they did not deter individuals from committing certain acts, thus the importance of establishing the effectiveness of CS with regards to deterrence. This same consideration must also be given to the effectiveness of detention lengths with regards to deterrence. Do severe detention lengths, those that consist of lengthy stays, have more impact on recidivism? This question, with consideration to deterrence theory, is at the heart of this study.

Deterrence theory, just deserts, and Robert Martinson.

Both Akers (1990) and Haist (2009) reported that deterrence was likely one of the most studied topics within the criminal justice world at the time of their respective published works. Clearly punishment theory is a dominant discussion point in criminal justice as it still dominates criminal justice conversations over two hundred and fifty years after Beccaria's original writings. The knowledge base for deterrence theory is incredibly vast to say the least. At this point it is also essential to note then that deterrence theory finds its roots in the Classical School of Criminology founded by Beccaria and Bentham. The basis of deterrence theory is that human decisions are generally informed and thus the consequences of those actions are typically considered prior to following through with the action (Akers, 1990). It is in that consideration of consequences that deterrence theory can affect the legal system. Beccaria and Bentham suggested that any intelligent man will strive for the most pleasure and least amount of pain. However, also as they suggested, if the potential consequence of that action is much more painful than the pleasure gained a rational man will likely be deterred from committing that

action. Deterrence theory, as Nagin and Pogarsky (2001) stated, is seemingly a twentieth century updated version of Beccaria and Bentham's theoretical perspective.

Although the theoretical framework of the philosophy of CS finds its roots in the Classical School of Criminology and in the deterrence theory, the theoretical framework of the driving force behind the practice of CS is slightly different. The reasoning behind CS and other similar mandatory sentencing and sanctioning policies is based not in the Classical School of Criminology or in deterrence theory but in theories like just deserts that are focused more on retribution than deterrence. As noted above, rising crime rates of the 1970s and 1980s lead to get tough policy shifts like mandatory and zero tolerance sentencing and sanctioning mandates. Andrews and Bonta (2010) noted that it was during the 1970s and 1980s that the work of von Hirsch and Martinson (Lipton et al., 1975; von Hirsch, 1976) significantly impacted the philosophy of not only sentencing but also corrections. The philosophy of CS is undoubtedly deterrence and the Classical School but the reasoning behind the call to enact such mandates is very much retributive, likely born from the paradigm shift of the 1970s and 1980s. It seems as though CS finds itself at a cross roads when considering the entirety of its theoretical framework.

The just deserts theory of criminology was promoted chiefly by Andrew von Hirsch during the 1970s (Braithwaite, 1982; Seiter, 2011; von Hirsch & Ashworth, 1992; von Hirsch, 1976). The theory promoted the use of punishments that were proportionate to the crimes committed; proponents of just deserts believed in just that, a criminal should receive an equally harsh sanction for any crime committed (Clear et al., 2011; Seiter, 2011; von Hirsh & Ashworth, 1992; von Hirsch, 1976). It is easy to see then how the driving philosophy of CS is at a criminological cross road of sorts. The philosophy of a zero tolerance mandate like CS is both based in the Classical School and deterrence theory which both promote the importance of the

deterrent effect of punishments and in models like just deserts which promotes proportionate punishments. The two theories are very much related in that they emphasize the deterrent effect of punishments. However, there is also the sense that the two theories are likely divergent with regards to practice. Just deserts models are presumably much more attentive to punishment for the sake of retribution while the Classical School and deterrence theorists were seemingly much more interested in the utility of punishment to serve the greater good. There is considerable overlap when comparing the models and there is considerable disjointedness as well.

A final consideration when reviewing criminological theory and scholarly research with regards to mandatory sentencing and sanctioning, zero tolerance mandates, and get-tough-on-crime is the work of Robert Martinson and colleagues (Lipton et al., 1975). Andrews and Bonta (2010) suggested that Martinson did not reject deterrence theory, but he did suggest that rehabilitation was essentially unobtainable. Martinson's suggestions were born of the seminal work he and colleagues completed in which the suggestion that nothing works in corrections, with regards to rehabilitation, was noted (Andrews and Bonta, 2010; Clear et al., 2011; Lipton et al., 1975; Seiter, 2011). While Lipton, Martinson, and co-authors seemingly did not advance criminological theory, per se, they did fuel the growing fervor for get tough on crime policies. Legislators and policy makers alike took note of Martinson and colleague's (Lipton et al., 1975) conclusions regarding rehabilitation and pushed for tough sanctions essentially using "nothing works" as a call to move away from the rehabilitation focus of the 1960s towards get tough on crime policies still in practice today.

In conclusion, the theoretical framework of CS is a bit convoluted. On the surface, the philosophy behind CS is very much based in deterrence theory and the Classical School of Criminology. By attempting to reduce detention days, revocations, violations, and future

criminality, the developers of CS relied on a model that fits well into deterrence theory and the Classical School. In practice CS would come down hard on offenders, by acting with certainty and severity; the rationale was offenders would be deterred from committing any more criminal acts. Webster, Doob, and Zimring (2006) noted that policies such as CS are closely tied to early deterrent philosophies. However, the movement that precipitated CS is not exclusively focused on deterrence theory or the Classical School. These theories emphasized punishment as a tool for deterrence by way of utility. The just deserts theory and the suggestions of Lipton and Martinson are more likely the philosophies behind the calls to enact policies like CS. These latter theories of sanctions and corrections focus much more on retribution and punishment seemingly for punishment's sake. It is seemingly clear to see that CS fits well into an evolution of criminological theory. Past theories of punishment drive the philosophy, likely the intents of the developers, while more contemporary theories and conclusions drive the vigor behind the calls to utilize such mandates. Or as Tonry (2006) stated, when considering the topic of sentencing reform, "Mandatory minimums are a classic instance of criminology and public policy marching in different directions" (p. 45).

Mandatory sentencing/sanctioning policies.

Primary among the issues surrounding get tough policies like zero tolerance and mandatory sentences and sanctions is that there is little relevant research to answer whether or not such policy shifts and the overall processes to formulate those shifts achieved what they were administered to achieve (Bushway, 2011; Engen, 2009; Lynch, 2011; Nagin, 1998; Smith et al., 2002). Bushway (2011) noted that increased incarceration rates are indubitable; the issue remains which policies have driven those incarceration rates to raise so significantly during the past few decades? Significant policy changes have taken hold in at least 43 states and the federal system

but there is little consensus as to which, if any, have been able to achieve their intended results (Engen, 2009). Lynch (2011) agreed, noting that there have been significant increases in incarceration across the United States. That fact has generally reached a consensus, the issue remains, as noted, that there is little theoretical or empirical evidence as to why incarceration rates have increased so dramatically (Lynch, 2011).

Cano and Spohn (2012) disagreed with the question of clarity in the reasoning behind incarceration increases as they suggested that sentencing for drug offenders explicitly led to significant increases in incarceration rates. The authors' report cited the Department of Justice when noting that of the 90,000 offenders in federal custody in 1993, half were drug offenders (Cano & Spohn, 2012). One third of those drug offenders had no prior history of violence, sophisticated criminal activity, or prior prison sentences on their records but that they were serving an average of 81 months in prison (Cano & Spohn, 2012). The importance of conducting a long term, ex-post facto study of a mandatory sanctioning policy, by way of detention, like CS is becoming much clearer. Nagin (1998) reported that evidence suggests a strong correlation between the criminal justice system as a whole and deterrence, but that there is little evidence regarding which specific policy shifts have led to that deterrence or even which have been effective.

It is when consideration of mandatory sentences and sanctions moves outside of the consideration of the process phase of the criminal justice system that existing literature becomes more abundant. Doob and Webster (2003) concluded that there is little or weak evidence to support the deterrence of stiff sanctions. Tonry (2011) stated that decades' worth of research focusing on deterrence and severe punishments has yet to clearly illustrate effective results. Nagin (1998) reported that the existing evidence regarding the ineffectiveness of mandatory

sentencing in establishing deterrent effects is numerous and authentic. Smith and colleagues (2002) conducted a meta-analysis of research that attempted to correlate punishments and recidivism. The authors noted that the increased use of harsh penalties like incarceration and intermediate sanctions is obvious, but the effectiveness of using such options remains unclear (Smith et al., 2002). Lynch (2011) suggested that although mandatory sentencing policies exist in multiple states, the fact that they differ so much greatly effects the ability of their presence to be predictive of sentence length, let alone their usefulness. It should be noted that not only is there difficulty in establishing overall effectiveness, in terms of crime deterrence, but there is also significant evidence that suggests mandatory sentences are simply unfair towards many offenders. Warner (2006) noted the need to evaluate the overall effectiveness of mandatory sentencing policies as a significant issue when considering the knowledge base.

Tonry (2006) suggested that mandatory sentences produce significant injustices among offenders sentenced under such mandates and thus they should be considered ineffective. Cano and Spohn (2012) agreed, noting that numerous studies have highlighted the overall lack of uniformity in sentences handed down. Furthermore, the authors cite Vincent and Hofer (1994) who reported “there is substantial evidence that the mandatory minimums result every year in the lengthy incarceration of thousands of low-level offenders who could be effectively sentenced to shorter periods of time” (as cited in Cano & Spohn, 2012, p. 314). Rodriguez (2003) reported findings that indicate judges are just as likely to sentence nonviolent offenders to lengthy prison sentences as they are to sentence violent offenders when mandatory sentencing structures are in place. Rodriguez (2003) reviewed Washington’s 1993 three strikes law when the conclusion was made. It seems counterintuitive that sentencing mandates, established to reduce one specific crime type, appears to eventually proliferate into the sentencing decisions of multiple offenders.

Kramer (2009) noted the impact mandatory sentencing has had, or rather has not had, on extralegal disparities such as race. The author went further to note that some mandatory sentencing mandates were established to reduce sentencing disparity and some had been effective in that exercise (Kramer, 2009). However, upon further review of other relevant literature the author noted that a great deal of extralegal disparity existed pre-policy shifts and that any relationship between mandatory sentencing and the subsequent effect on disparity is weak at best (Kramer, 2009).

The criminogenic crossroads noted earlier with regards to theory and mandatory minimum sentencing in practice might be restated here due to the inclusion of disparity among sentenced offenders. Spohn and Belenko (2013) noted that, ideally, judges would utilize discretion when considering the charges before them. Sentences ought to fit the specific crime and the specific criminal. This sentiment would fit well into the Classical School and the suggestions from Beccaria and Bentham. However, as the authors noted, seldom is discretion openly available in this day and age (Spohn & Belenko, 2013). Ideally, judges would consider a criminal's past with mitigating factors such as substance abuse history, employment history, education, family life and so on. However, with the increase in mandatory sentences, especially for drug offenders, judicial discretion is often a fairy tale. Spohn and Belenko (2013) noted that the Federal Sentencing Guidelines Manual from 2008 explicitly denotes the fact that judges should not consider factors such as race, gender, creed, religion, and socioeconomic factors when considering sentences. The elimination of such characteristics is likely to assist in the elimination of racial disparity which was mentioned previously. However, the authors also pointed out that the federal guidelines also list personal factors such as age, educational and vocational skills, substance abuse history, family life, employment history, and community ties as not consistently

relevant to the sentencing process (Spohn & Belenko, 2013). The exclusion of such personal factors is likely to hinder the sentencing process as such factors ought to be included in a judge's discretion. The elimination of these characteristics would be out of step with the Classical School as Beccaria and Bentham emphasized the importance of the utility of punishment. However, von Hirsh and others who believe in just deserts would likely cheer the elimination of discretion and the consideration of personal characteristics in the sentencing process. As Tonry noted, mandatory minimums, as well as the entire sentencing process, surely are at a criminogenic crossroads with regards to criminological theory and practice.

Mandatory sentences in action.

Rengifo and Stemen (2010) reviewed the effects of Kansas's Senate Bill 123 which mandated that specific drug offenders undergo drug treatment in lieu of incarceration. Although not a mandated sentencing policy like CS, per se, Senate Bill 123 requires treatment with little inclusion of judicial or other discretion. Thus, a review of research that evaluated Senate Bill 123's effectiveness is relevant to this research. Upon review of 1,494 individuals who received mandatory drug treatment as part of Senate Bill 123, Rengifo and Stemen (2010) concluded that Senate Bill 123 offenders did not recidivate at a lower rate of a comparison group of 4,359 individuals who did not receive mandated drug treatment as part of their sentence during an 18-month follow-up. Furthermore, the researchers noted that some offenders may not have been a good fit for the overly intensive nature of the treatment programs as Senate Bill 123 likely widened the net for eligible offenders (Rengifo & Stemen, 2010). The authors concluded that the mandatory nature of the drug treatment was likely a considerable obstacle for the reduction of recidivism and overall effectiveness of the policy (Rengifo & Stemen, 2010).

Jordan and Myers (2011) gauged the effectiveness of Pennsylvania's Act 33 legislation by reviewing the cases of 345 youth sentenced under the bill. Act 33 is a mandatory provision in Pennsylvania that authorizes the automatic certification of juveniles to the adult court for specific crimes (Jordan & Myers, 2011). A majority of the findings dealt specifically with variables related to the comparison between the juvenile and adult courts which is outside the scope of this research. However, Jordan and Myers (2011) did not find a difference between mandatorily waived youth and youth who remained in the juvenile court in terms of further convictions during a nine month review of the policy. The authors also noted that those youth who were waived as part of Act 33 were likely to incur longer sentences as well. Again, there is substantial difference between the juvenile and adult courts, but the variables noted that deal specifically with this evaluation of CS are telling. Juveniles who were waived as part of mandatory legislation, clearly certain and undoubtedly severe, did not have any difference in terms of recidivism and were likely to serve longer sentences. These findings are mixed when considering deterrence and the overall effectiveness of a mandatory sentence. The findings from this evaluation of CS will be telling when considering such variables.

Graduated sanctions, drug courts, and treatment.

An alternative to severe sanctions, like those emphasized by CS, is the use of graduated sanctions. Drug and/or alcohol users are of specific concern within the research study, thus research that focuses on sanctions particularly devised for the special needs of that population ought to be considered. Drug courts and other graduated sanctions are an example of the impact that the medical model of sentencing that is now widely accepted has had on the population. Spohn and Belenko (2013) noted that this medical model of drug use, criminality, and treatment is widely accepted in the scientific community. The authors go further to note that drugs alter the

brain's chemistry in ways that can last for months after users stop abusing a particular substance and that cravings that can lead to relapse due to the altered brain chemistry of users (Spohn & Belenko, 2013). These cravings, if left untreated, are likely to be met with criminality. This realization alone ought to at least detail the importance of treatment rather than straight and severe sanctions.

Guastafarro and Daigle (2012) agreed with the importance of treatment alongside sequential punishments when they highlighted the importance of the use of graduated sanctions, rather than zero tolerance sanctions, when attempting to change behavior by noting that excessive punishment often lacks clarity, consistency, and effective communication. Furthermore, Guastafarro and Daigle (2012) stated that overly harsh sanctions are often unnecessary and counter effective. Guastafarro and Daigle (2012) also suggested that graduated sanctions have a lengthy history in the criminal justice system as they are a key element to the deterrence theory and are basically a practical extension of deterrence theory.

Harrell and Roman (2001) noted that deterrence theory emphasizes free will and the decision making process. The authors suggested then that if an individual's freedom is continually in question as it is tied directly to his or her decisions, then the opportunity to remain free is on the offender's shoulders; following the rules of graduated sanctions or committing crime is a prime example of deterrence theory (Harrell & Roman, 2001).

Wodahl, Ogle, Kadleck, and Gerow (2009) further noted that graduated sanctions generally promote offender compliance due to perceptions of these types of sanctions. Based on the perceptions of 107 offenders sentenced to Wyoming's Department of Corrections' Intensive Supervision Program, Wodahl et al., (2009) found that offenders actually viewed some graduated sanctions as much more severe than a jail term. The authors utilized an equivalence scale from

the survey results of the 107 offenders to note that some offenders felt that a writing assignment was much harsher than a two day jail term (Wodahl et al., 2009). Although, based on the findings from Wodahl et al., the perception of graduated sanctions from offenders may not be the desired perception; it is interesting to note that such graduated sanctions may have the same severity effect that a jail term does. If administrators were able to take advantage of these perceptions, the desired punishment severity from offenders could be obtained alongside the desired cost savings graduated sanctions typically provide. Utilizing graduated sanctions then may be an effective alternative to mandatory and zero tolerance policies like CS.

An example of the practical use of graduated sanctions with an emphasis on the philosophy of deterrence is the use of drug courts. At the core of the drug court model is an emphasis on treatment rather than sanctions; by focusing on treatment it is believed that addicted offenders will eventually develop healthier lifestyles that are both drug and crime free (Brown, Allison, & Nieto, 2010; Gottfredson, Najaka, & Kearley, 2003; Rodriguez & Webb, 2003). The driving assumption behind the use of drug courts, and treatment, is that the use of drugs leads directly to committing other offenses due to the necessity of monetarily supporting drug habits (Lutze & van Wormer, 2007; Rodriguez & Webb, 2003). Thus, treatment, when effective, would eliminate this cycle of criminality. It should be noted though that a major criticism of drug treatment courts are that they essentially coerce offenders into treatment and that treatment is generally most effective when individuals volunteer their efforts (Wilson, Mitchell, & Mackenzie, 2006).

With these considerations in mind a review of the research regarding the effectiveness of drug treatment courts is generally positive. Rodriguez and Webb (2003) reported that multiple sources suggested that drug treatment courts not only offer offenders the option of treatment, but

the courts also satisfy the need for supervision. As a result of this supervised treatment the authors noted that offenders not only experienced reductions in substance use and criminal activities but they also experienced increases in stability in their personal lives as well (Rodriguez & Webb, 2003). Gottfredson et al., (2003) reported that available research focusing on drug treatment courts generally provides positive support for the model. The authors went on to suggest that most studies of treatment courts are hindered by limitations of small sample sizes and strong reliance on comparing groups of graduates to non-graduates (Gottfredson et al., 2003). Thus the overwhelming positive results could be called into question. However, Gottfredson and colleagues (2003) concluded that upon review of the few rigorous studies available at the time suggested generally positive results on the reduction of criminality.

Further support of the effectiveness of drug treatment courts includes evidence from a meta-analysis conducted by Wilson et al., (2006) which indicated that offenders who participated in drug treatment courts were less likely to reoffend than those offenders sentenced to traditional sanctions. The studies included in the meta-analysis had follow-up periods ranging from 12 to 48 months. A 2005 report from the United States' Government Accountability Office (GAO) found a positive correlation between treatment courts and the reduction of recidivism (United States Government Accountability Office, 2005). The same GAO report did note mixed results regarding offender relapse and a difficulty narrowing down the distinct variable that led directly to the recidivism reductions (United States Government Accountability Office, 2005). Drug treatment courts are not the only effective model of treatment. The research noted previously indicates that treatment outside the drug court model is also effective at reducing recidivism and substance abuse.

The example of drug treatment courts, when considering graduated sanctions, relates to this study as the impact of severe sanctions with regards to drug and/or alcohol offenders and non-drug and/or alcohol offenders will be reviewed. The literature presented above indicates that graduated sanctions are likely to serve the offenders more efficiently; much of the above literature suggests that graduated sanctions and treatment are likely to better serve the goal of the reduction of criminality. Gottfredson et al., (2003) specifically pointed out that sanctions alone are not likely to serve substance abusers well; at least some form of treatment should be considered during sentencing. Research from Harrell and Roman (2001) noted that offenders who received graduated sanctions were less likely to be re-arrested within one year of sentence than were offenders who did not receive graduated sanctions. The authors also noted that non-graduated sanctions participants averaged fewer days on the street prior to re-arrest when compared to those graduated sanctions offenders that were re-arrested (Harrell & Roman, 2001). Furthermore, Harrell and Roman (2001) reported that offenders who did receive graduated sanctions were more likely than those who were not sentenced to such sanctions to receive hospital treatment and detox. The importance of the availability of detox cannot be overstated as research noted previously from Spohn and Belenko (2013) highlighted the lasting chemical dependence that drugs typically have on users.

An emphasis on treatment in general, rather than simply on drug treatment courts or on the immediate sanctions such as those emphasized in CS, is likely to better serve not only the offenders but also the general community. However, policy administrators must take note of the direct guidelines of any specific treatment program in question as well as the efficacy of those guidelines. Lutze and van Wormer (2007) reported that there is evidence that suggests treatment for treatment sake of some lower level offenders may actually increase recidivism and thus

treatment guidelines must be strictly adhered to. When treatment guidelines are followed though, evidence suggests that there are many positive results with regards to effectiveness. Brown et al. (2010) reported that treatment has been found to reduce recidivism. Olver, Stockdale, and Wormith (2011) noted that when treatment adheres to specific guidelines, most notably the principles of risk, need, and responsibility, it is likely to produce positive results with regards to recidivism. Guastaferrero and Daigle (2012) stated that multiple programming aspects, as opposed to incarceration only, improve desirable outcomes; offenders in treatment rather than incarceration only are also more likely to completed treatment. Gottfredson et al., (2003) noted that sanctions alone are unlikely to positively affect substance abusers as addiction limits cognitive ability to make rational choices. It is difficult, according to the authors, for addicts to choose between drugs or a sanction. Oftentimes addicts need the assistance of treatment to break away from addiction (Gottfredson et al., 2003).

Petersilia (2003) noted that less than a third of all released prisoners will have received substance abuse or mental health treatment while incarcerated. Furthermore, Holloway, Bennett, and Farrington (2006) reported that previously completed meta-analyses of drug treatment research found that drug offenders are more likely to commit higher rates of crimes than other categories of offenders. CS emphasizes harsh sanctions as the primary response to any violation regardless of presenting offense. With many CS clientele likely serving probation terms for drug and/or alcohol offenses, straight incarceration in the form of a sanction eliminates the immediate availability of community treatment options as well as the possibility for graduated sanctions. Furthermore, evidence noted previously points to the likely ineffectiveness of straight incarceration and mandatory sentences and sanctions with regards to recidivism and criminal deterrence. However, there are extensive research findings that suggest a positive relationship

between treatment and the reduction of recidivism as well as the reduced dependence on illegal substances. The research highlighted regarding graduated sanctions and drug treatment courts speaks directly to the importance of the reduction of the mandatory aspect of policies such as CS. Furthermore, research such as that of Spohn and Belenko (2013) and others that highlight the significant increases in prison populations due to mandatory drug sentences supplement the call to use graduated sanctions and questions the effectiveness of zero tolerance policies. Krebs, Strom, Koetse, and Lattimore (2009) summarized the issue surrounding graduated sanctions, straight sanctions, and substance abusers by stating that a number of treatment approaches have a long history of evaluation and research but there is a need to continually increase this body of knowledge to determine which sanction options are most effective at reducing both substance abuse and criminality.

As noted, this research is not intended to focus on treatment versus non-treatment, but rather on the impact and utility of straight and severe sanctions for probation violators. The research highlighted in this literature review notes the impact that sanctions can have on offenders in general but also on substance abuse offenders. This research then intends to study the difference between drug and/or alcohol offender and non-drug and/or alcohol offender with specific concern to detention length (sentence severity) and recidivism. Based on the review of the literature one might expect the H_0 to suggest that there is no difference between drug and/or alcohol offenders and non-drug and/or alcohol offenders when considering the impact of sanctions on the two populations of CS. There will also be an analysis and discussion of the number of CS clients that received a sanction for a violation that would fall within the same category as their presenting offense. Such a consideration is essential especially for the drug

and/or alcohol offenders as treatment, rather than sanctions alone, would be hypothesized to have a significant impact on whether or not a client is able to desist from criminal activity.

Negative effects of detention and longer detention lengths.

An additional issue relating directly to drug offenders, as noted by Spohn and Holleran (2002), is the fact that drug offenders compose such a high percentage of current inmates in both state and federal prisons. Drug offenders currently make up more than half of federal inmates and just under half of all state inmates (Seiter, 2011; Spohn & Holleran, 2002). Furthermore, statistics from the Bureau of Justice Statistics indicate that while drug offenders are on par with all offenders with regards to the percentage that is likely to recidivate, the increase in the percentage of drug abusers who do recidivate increased at much higher rates than the other crime types during a ten year review of re-arrests (Bureau of Justice Statistics, 2013). With this data in mind it is interesting to note Inciardi, Martin, and Butzln's (2004) findings that suggested that treatment participation was a significant predictor of recidivism among the population in their research. Although treatment participation is not always optional for offenders sentenced to graduated sanctions, its effect is likely to be beneficial to those users. The authors agreed with such a sentiment, noting that their findings suggested that treatment completion resulted in the most positive outcomes but that any participation in any treatment, regardless of completion, also resulted in positive outcomes for participants (Inciardi et al., 2004).

Directly related to drug offending versus non-drug offending are the findings from Stahler, Mennis, Belenko, Welsh, Hiller, and Zajac (2013) that suggested that drug involvement is a considerable risk factor for recidivism among convicted offenders. While this suggestion is nothing new, the analysis of the finding from the authors sheds light on a further aspect of why drug offenders may not necessarily benefit from zero tolerance, mandatory sanctioning and

sentencing policies like CS. The authors noted that, based on their findings, drug offenders are almost always drug involved and that there appears to be a significant interaction between drug use and offense type which might support the case for at least offering treatment first rather than solely relying on incarceration (Stahler et al., 2013). This suggestion, as well as many others previously or subsequently noted regarding incarceration and drug use, also has implications for the theoretical framework of this study. Deterrence theory and the Classical School of Criminology emphasize the utility of punishments. If punishments are not serving society in a utilitarian manner then they are not likely to be efficient in their use. If drug users are so driven by their drug use, as suggested by Stahler and colleagues (2013) and by Spohn and Belenko (2013), then is punishment by way of incarceration the most effective way to serve society and to correct criminal behavior? It has been repeatedly noted, the response to drug users has overwhelmingly sided with incarceration first rather than with treatment which might be marked by more utility for society. Incarceration first not only negatively impacts offenders as has been and will continue to be illustrated, but it also likely impact the utility of sentences at large, at least based on the philosophies of deterrence theory and the Classical School.

Another consequence of the increased use of prison sentences due to the get-tough-on-crime mentality, especially for drug offenders, is the longer prison sentences that offenders are now serving. Seiter (2011) reported that the average prison sentence has increased by almost six months from 1990 to 2001. However, drug offenders are not the only population of offenders that are serving longer detention lengths as the average incarceration stay is now longer than pre-get-tough stays (Seiter, 2011). These increases in detention length have significant detrimental effects not only to the offender but also to the community at large.

For example, Schnittker and John (2007) stated that longer detention lengths can lead to increased stigma associated with the offender, increased exposure to immediate and long-term health concerns, and significant issues related to institutionalization and post-release assimilation. Petersilia (2003) and Lynch and Sabol (2004) noted that this increased association with the stigma of criminality can have devastating impacts on the employment opportunities of ex-offenders. Western, Kling, and Weiman (2001) reported that any length of time spent incarcerated is likely to diminish existing and marketable job skills that offenders may have. Kling (2006) suggested that even if offenders are able to secure employment post-incarceration, that employment is likely to be very low paying and typically does not last long. Furthermore, Clear, Rose, and Ryder (2001) noted that there is significant shame and distrust associated with incarceration which can make societal reintegration difficult for both ex-offenders and their families. The authors go further to note that community integration offers a great deal of informal social controls and by not being able to integrate well into these informal control relationships further compounds the difficulties ex-offenders face once released (Clear et al., 2001).

Foster and Hagan (2009) and Petersilia (2003) highlighted the significant concerns for familial reintegration among incarcerated offenders. Being away from the family for any length of time due to detention can have negative consequences including the potential for intergenerational imprisonment, stigma associated with having incarcerated family members, and increased stressors on the parent-child bonds (Foster & Hagan, 2009). Incarceration has also been shown to negatively affect the children of offenders. Wildeman (2010) noted evidence from the Fragile Families and Child Wellbeing Study that suggested parental incarceration is linked to observed increases in physical aggression among children.

Dallaire (2007) reported that parental incarceration places children at greater risk for school failure and their own future incarceration. The author also noted that maternal incarceration can have significantly more negative impacts on the family than can paternal incarceration. Dallaire (2007) noted that maternal incarceration can lead to increases in poverty, substance abuse, mental illness, and abusive relationships among children in the home. By relying on mandatory sentencing policies, and their longer detention lengths, jurisdictions are not only increasing the stressors placed on the community and the offender, but they are also likely placing undue stress on the children of offenders as well.

Lynch and Sabol (2004) found that incarceration itself may seriously negatively impact the potential for ex-offenders to get married. This limited marriageability not only affects individual offenders but also the community at large. Lynch and Sabol (2004) noted multiple resources that suggested this characteristic of many ex-offenders likely increases the number of female-headed households in areas already hit hard by crime.

Incarceration not only impacts the family and employment opportunities, both important for successful reintegration for offenders, but it can also increase their likelihood of future criminality. Smith et al., (2002) suggested that, based on a meta-analysis of 117 studies that focused on the correlates of recidivism, there was “tentative indications that increasing lengths of incarceration were associated with slightly greater increases in recidivism” (p. ii). More specifically the authors noted it was the offenders who received the severest sanctions that were also most likely to recidivate (Smith et al., 2002). The authors also reviewed studies that compared community-based sanctions and incarceration and found that individuals who were incarcerated where, again, more likely to recidivate (Smith et al., 2002).

Although much of the literature noted is associated with long term imprisonment, any length of stay in a detention facility can increase the likelihood of the highlighted consequences. Makarios, Steiner, and Travis (2010) studied Ohio parolees and found that the majority committed a new crime within one year of release due to the difficulty faced when reentering society. The issues many offenders face upon reentry have been previously noted, but the issues Makarios et al., (2010) pointed to stem directly to incarceration in general. Simply being incarcerated decreases the control factors, as has been noted, and thus increases an offender's chances of recidivating. Such a realization should only increase the support for the use of graduated or community-based sanctions and hinder the efforts to get tough on crime. CS fits well into this discussion as it emphasizes the use of incarcerations for probation violators. It might also be pertinent to point to the importance of the research regarding graduated sanctions and detention lengths and research question three of this study. The research question itself is tied directly to the research reviewed in this section; the previously conducted research noted in this section highlights the importance of the question with regards to the greater study.

Hawaii HOPE.

Certain Sanctions, as has been pointed out, is an example of the get-tough-on-crime mandates that swept through the United States beginning in the 1970s and 1980s. The effectiveness of CS is at the heart of this research as it is a direct programmatic interpretation of get-tough-on-crime and the deterrence theory. Another program also exists that attempts to treat probation violators in a very similar fashion. In 2004, Judge Steven Alm implemented an experimental probation initiative in response to the growing demand for the use of probation as well as the growing issues the probationers present (Hawken, 2010; Hawken & Kleiman, 2009). Judge Alm's experimental program, known as Hawaii HOPE (Hawaii's Opportunity Probation

with Enforcement) focused on the very same theoretical framework that CS relies on. HOPE emphasizes swift and certain sanctions for its adult probationers who step out of line while on probation in an effort to deter individuals from committing further violations (Hawken, 2010; Hawken & Kleiman, 2009; National Institute of Justice, 2010).

The HOPE initiative began in 2004 as a pilot program with 36 clients and expanded quickly to include over 1,500 probationers which is approximately 17% of all felony probationers on Oahu (Hawken & Kleiman, 2009). The program itself begins with a formal warning to appropriate probationers from the court; participants are made aware of what is expected from them and that there will be zero tolerance for probation violations (Hawken, 2010; Hawken & Kleiman, 2009). There is slightly more emphasis on drug testing and the reductions of drug use and missed appointments in HOPE (Hawken & Kleiman, 2009) when compared to CS. It should be noted though that CS does focus on drug treatment when appropriate. However, HOPE mandates that the probationers within the initiative submit to at least one randomized drug test per week and that any probationer with multiple violations be referred to intensive substance abuse counseling that is usually residential in nature (Hawken, 2010).

Evaluations of HOPE have demonstrated positive outcomes when compared to traditional probationers. Hawken (2010) reported that positive drug tests for those probationers assigned to HOPE decreased by 83% while positive drug tests for traditional probationers increased during the first three months of programming. During a six month follow-up, Hawken (2010) observed a 93% decrease in positive drug tests for those HOPE probationers. Further outcomes include substantial decreases in missed appointments, revocations, and fewer days incarcerated for new convictions (Hawken, 2010; Hawken & Kleiman, 2009; NIJ, 2010). The evaluations noted of HOPE illustrate results that suggest overall effectiveness of the zero tolerance mandate in

Hawaii. This research review of CS will add to the knowledge base regarding the effectiveness of zero tolerance mandates and deterrence theory in practice for adult probationers as CS is very similar, programmatically speaking, to HOPE. Research focusing on an additional mandatory policy strategy for probationers will contribute to the understanding of the effectiveness of such mandates.

Previous studies of mandatory policies.

In an effort to efficiently add to the existing knowledge base regarding the effectiveness of mandatory sentencing policies and the practical implementation of deterrence theory it would be wise to review and critique previously reported research so that effective methods can be utilized and tested. Furthermore, any ineffective methodologies observed based on a review of previous research can be avoided. First and foremost among that previously reported research to consider is the evaluation of Hawaii HOPE completed by Hawken and Kleiman (2009) as Hawaii HOPE is very similar in many respects to CS.

Hawaii HOPE evaluation.

The authors began their evaluation of HOPE with six specific aims and six specific hypotheses. Hawken and Kleiman (2009) focused on the outcomes of HOPE with regards to drug use, missed appointments, jail-days served, prison sentences, recidivism, and revocations. The research evaluation of HOPE is very similar to this review of CS, thus the knowledge base regarding probation-based mandatory sentencing policies will grow substantially as the evaluation of HOPE is the only known research of its type.

Data collection was achieved mainly by primary and secondary outcomes, most notably the use of PROBER and the Criminal Justice Information System (CJI) which are case-management and criminal record-data information systems (Hawken & Kleiman, 2009). The

authors also utilized interviews with key stakeholders including probationers, probation officers, and other court staff in an effort to gain data regarding satisfaction with HOPE (Hawken & Kleiman, 2009). Bachman and Schutt (2011) reported that the utilization of qualitative methods such as interviewing allows both the researcher and reader the opportunity to gain a “richer and more intimate view of the social world than can be achieved with more structured methods” (p. 300). Case-management systems, however, are not always 100% accurate and thus the authors utilized quality control measures to eliminate as much inaccuracy as was possible. Hawken and Kleiman (2009) reported that they cross referenced a random sample of hard-copy files with the files recorded in PROBER to eliminate as much doubt as possible. This review of CS utilized very similar techniques and data collection methods. Quantitative data collection techniques are reported in better detail in chapter three, but it is important to note that very similar methods, when considering those utilized in the evaluation of HOPE, were utilized in this review of CS.

To measure drug use, Hawken and Kleiman (2009) utilized random drug tests; any contested tests were sent off for laboratory confirmation. The authors noted that drug testing was different for HOPE probationers than it was for the comparison group as the comparison group was typically made aware of their upcoming drug tests which HOPE probationers were not (Hawken & Kleiman, 2009). Results from initial drug tests were utilized as the baseline for comparison to subsequent drug tests to measure the effectiveness of HOPE with respect to the decline in the use of drugs. Hawken and Kleiman (2009) utilized follow-up testing at three month intervals post baseline testing. Results from the drug tests indicated, as the authors noted, a small number of probationers who seemingly could not or would not desist from drug use regardless of sanctions or treatment introduced (Hawken & Kleiman, 2009). Drug testing would benefit this review of CS; however it is currently not within the resources of the researcher. This

limitation to the research should be remedied in any further study of CS so to add to the existing knowledge base set by Hawken and Kleiman's evaluation of Hawaii HOPE.

The authors next measured any difference noted in the number of aggregate revocations accrued between the HOPE probationers and the standard probationers and found that the probationers in the comparison group were three times more likely to be revoked when compared with those probationers under the HOPE mandate. Revocations of CS probationers were not considered as part of this research, but should be a considered variable in any future research of the population. Again, it would still benefit the greater study if a comparison group of standard probationers were available. Any future research that utilizes this same population should also attempt to include a population of standard probationers.

Hawken and Kleiman (2009) found that HOPE probationers spent, on average, the same number of days detained in jail as did standard probationers and fewer days in prison. The authors summarized that there was no increase in the number of days detained among HOPE probationers due to higher compliance rates among that population presumably due to improved overall compliance in the face of immediate sanctions (Hawken and Kleiman, 2009). This finding speaks to the effectiveness of HOPE with regards to deterrence theory. HOPE probationers experienced higher rates of compliance due to the deterrent effect of possible sanctions. It would be informative if CS probationers experienced a similar compliance and detention rate when compared to standard probationers. See chapter five for a review of the results from this study for any comparison to the results from the Hawken and Kleiman (2009) research. The ability to compare detention days between CS probationers and standard probationers highlights a glaring limitation to this study. However, due to limitations of resources such a study is currently not feasible. Future studies of CS will need to consider the

utilization of a comparison group to address compliance and incarceration rates. The comparison of detention days across the two populations of CS clients allowed for consideration of what type of offender might be served best by deterrence theory and what type of offender might be best suited for other sanctioning options.

The authors also evaluated the overall process of Hawaii HOPE primarily by measuring client and probation officer satisfaction. This review of CS did not replicate this aspect at this time. It would be difficult with regards to resources of the researcher to measure client satisfaction.

Pennsylvania's mandatory waiver.

Jordan and Myers (2011) conducted a review of 345 legislatively waived youth in Pennsylvania in an effort to determine the deterrent effect of mandatory waiver for juveniles. Although this study focused on juveniles, and this review of CS is specifically designed for adult probationers, similarities between the two exist. The primary resemblance is the effectiveness of mandatory sentences with relation to crime deterrence. CS relies on swift, certain, and severe sanctions for probationers who commit violations in an effort to reduce future criminality. Waiver to adult court would rely on the impact that severe sanctions have on the reduction of criminality among not only those sentenced but also among those in the general population (i.e. general and specific deterrence).

The focal point and population under review in the Jordan and Myers' (2011) study is juvenile offenders who have committed a serious enough offense to warrant legislative mandatory waiver to the adult court in Pennsylvania. Although the populations and types of behavior committed are substantially different, the underlying effort of both CS and mandatory waiver is deterrence. Jordan and Myers (2011) noted that they were attempting to measure

whether or not waiver to the adult court “meets the criteria necessary for deterrence to occur (i.e., certainty, severity, and swiftness of punishment)” (p. 247). This study of CS has the same goal in mind. Does CS meet the criteria necessary to deter individuals from committing further crimes due to the swift, certain, and severe nature of the sanctions imposed might be the tag line for this research?

The findings from the authors’ research were summarized previously, but the exact methodology was not detailed. A detailed analysis of the methodology was provided in an effort to offer comparisons with this proposed review of CS. It is worth noting again that the populations may be drastically different, but the underlying efforts of Jordan and Myers’ (2011) research and this proposed research are very similar.

Jordan and Myers (2011) reported that past research regarding juvenile transfer and specific deterrence examined effectiveness with regards to deterrence. However, the authors note that this past research had little regard for the consideration of certainty, swiftness, and severity of those punishments and which of those characteristics had the most impact on deterrence. The authors utilized data from three specific sites in Pennsylvania in an effort to compare the deterrent effect that legislative mandatory waiver (Act 33) had on the youth. Jordan and Myers (2011) utilized an ex-post facto study, the same research design as this study. However, the authors were able to employ comparison groups from across Pennsylvania. The use of such comparison groups, from without the study that is, is not available for this study of CS as there are not other known probation based sanctioning models except for Hawaii HOPE. It might be noted though that this research study will be utilizing comparison groups from within the CS population. However, future analysis of CS data should include, as noted previously, a comparison group of at least standard probationers. Furthermore, a comparison of CS

probationers and Hawaii HOPE probationers might offer useful findings with regards to the effectiveness of mandatory sanctioning policies specifically designed for probationers.

Jordan and Myers (2011) noted that for their analysis, random assignment to groups was not possible as the offenders likely had significant differences in factors outside the courts, control, specifically their geographical differences. However, the authors were able to control for these differences among the three groups by using the Heckman two-step approach for statistical control of such situations (Jordan & Myers, 2011). Such statistical controls are not necessary for this study of CS as there is only one generalized group of probationers under review.

The authors noted that conviction, target conviction, incarceration (adult or juvenile), and case processing time were the dependent variables for their study (Jordan & Myers, 2011). Target convictions were defined as whether or not the juveniles were convicted on the statutorily excluded offenses that triggered the waiver (Jordan & Myers, 2011). This variable is very similar to the variable of drug and/or alcohol or non-drug and/or alcohol offenses to be utilized as part of this research. Furthermore, the incarceration variable used by Jordan and Myers (2011) is comparable to recidivism for the adult offenders sentenced under CS. The authors defined incarceration as whether or not the convicted offenders were sentenced to secure confinement (Jordan & Myers, 2011). This data variable was utilized by Jordan and Myers (2011) in an effort to measure the effectiveness of Act 33 with regards to severity and crime deterrence. Recidivism, defined as future interactions with law enforcement (either arrests or probation violations) within one year, was similarly utilized in this review of CS in that any future law enforcement interaction within one year of release from detention represented ineffectiveness with regards to the deterrent factor of CS's use of severe sanctions for probation violations.

To garner results from their ex-post facto research of juveniles mandatorily waived to the adult court from three jurisdictions across Pennsylvania, Jordan and Myers (2011) employed multiple statistical analysis tools, most notably multivariate logistic regression. Based on their statistical analysis the authors found that there was no significant difference, in terms of the likelihood of punishment from one court to the next, and that waived youth were slightly more likely to be incarcerated. Utilization of similar regression analysis in this study of CS pointed to whether or not there was a punishment difference across categories of offenders. Chapter five presents the specific results and a discussion regarding their impact on the effectiveness of CS with consideration to offender type and recidivism.

The research conducted by Jordan and Myers (2011) at first glance appears to be significantly different from this study of CS. However, once the populations of each study are removed, the designs are very similar. Both attempted or will attempt to gauge the deterrent effects of a mandatory policy on a sentenced population. Furthermore, both studies utilized regression analysis of their previously recorded data for statistical analysis purposes. The findings from Jordan and Myers's (2011) research point to similarities between the adult court and juvenile court when considering overall punishment of offenders which not only assesses the effectiveness, or potential ineffectiveness, of Act 33 but also the deterrent effect of such a mandatory policy. Similarly, statistical analysis of CS also evaluated the deterrent effect of a mandatory policy, but for adult probationers rather than for violent juvenile offenders.

Kansas senate bill 123.

Rengifo and Stemen (2010) reviewed mandatory drug treatment for offenders sentenced under Kansas's Senate Bill 123. Results from Rengifo and Stemen's research were noted previously, but a review of the methodology might be useful especially with regards to this study

of CS. Briefly, Kansas Senate Bill 123 mandates drug treatment in lieu of incarceration for first or second time offenders with no prior convictions. Rengifo and Stemen (2010) attempted to measure the deterrent effect that mandatory drug treatment had on the sample population of offenders. Much like the Jordan and Myers research, the study conducted by Rengifo and Stemen may seem rather dissimilar when considering this review of CS. However, both Rengifo and Stemen's research and this research attempted to review the deterrent effect of a mandatory policy on sentenced offenders. This aspect is also similar to the research conducted by Jordan and Myers in that all three consider mandatory policies and the effect each has as a deterrent of recidivism.

Rengifo and Stemen (2010) reviewed data from 1,494 individuals sentenced under Kansas's Senate Bill 123 and compared that to data from 4,359 individuals who received a sentence that was not mandated by Senate Bill 123. Again, as was noted in the review of the research conducted by Hawken and Kleiman (2009) and Jordan and Myers (2011), this study of CS was not able to utilize a comparison group of standard probationers. This limitation should be remedied in any future research in order to be able to compare the overall effectiveness of CS when also considering standard probationers. Based on their data analysis, Rengifo and Stemen (2010) found that offenders sentenced under Senate Bill 123 were significantly less likely to recidivate than those offenders sentenced outside of the mandate. It should be noted that this finding speaks to the importance of drug treatment when compared to straight incarceration which relates directly to research question two and hypothesis two of this study. The authors further noted that these findings continued on through a six and a twelve month follow-up (Rengifo & Stemen, 2010).

To reach these results, Rengifo and Stemen (2010) utilized multinomial logistic regression analysis, similar to that of Jordan and Myers (2011), which will also be utilized in this evaluation of CS. Use of regression analysis allows the researcher to essentially predict the likelihood of a result based on previously recorded data (Salkind, 2011). Rengifo and Stemen (2010) utilized their regression models to predict the likelihood of supervision failure, defined as revocation or recidivism that led to incarceration. This review of CS also utilized regression analysis in an effort to predict what category of offender is most likely to recidivate which may address the question and hypothesis posed in and tied to research question two of this study. The studies conducted by Jordan and Myers (2011) and Rengifo and Stemen (2010) highlight the usefulness and appropriateness of regression analysis when considering the overall measure of effectiveness of mandatory sentencing models.

Federal sentencing study.

Cano and Spohn (2012) investigated the disparity created by substantial assistance departures from mandatory sentencing guidelines in an effort to understand the reasoning behind such departures. The authors utilized data from the District of Minnesota, the District of Nebraska, and the Southern District of Iowa in an effort to determine the reasoning that substantial assistance departures were requested by prosecutors in the case (Cano & Spohn, 2012). Although the sentencing structure at the focus of the research conducted by Cano and Spohn is different than that of CS, the findings regarding which populations were more likely to receive a sentencing departure may be helpful in understanding sentencing variations observed within the CS data. It is not currently known whether or not data from the sentences of CS probationers will result in uniform data regarding sentencing length or sentencing disparity based

on specific factors. Thus reviewing existing literature that is concerned with that vary topic will prematurely prepare the research for such an event.

Furthermore, the research conducted by Cano and Spohn (2012) speaks directly to the use of multiple regression techniques including logistic and ordinary least squares for the analysis of specific offender effects on the subsequent offender sentence. Regression analyses was the primary analytical tool for the evaluation of the CS data. Cano and Spohn's (2012) research also speaks directly to the importance of discretion, or at least the effect of discretion, in sentencing decisions. The findings suggested that prosecutors utilized discretion to seek an assistance departures based mostly on demographic characteristics and for certain crime types which highlights the importance of consideration or at least some type of sentencing overview. It seemed as though prosecutorial discretion was based on rather subjective, rather than objective, factors. The aforementioned sentencing overview might come by way of the use of judicial discretion rather than prosecutorial discretion as prosecutors are often elected on their crime fighting merits where judges likely find the bench due to their advocacy for fairness. Put another way, Cano and Spohn's (2012) findings seemingly noted the importance of discretion, but discretion from the bench rather than from the prosecutor. Finally, it should also be noted that Cano and Spohn (2012) conducted an ex-post facto study that utilized existing sentencing data. This same research design was also used to conduct this review of CS.

It is also important to note the limitations highlighted by Cano and Spohn (2012). The authors noted that their research contained a number of limitations, most notably the geographic location of the sentenced offenders and the ensuing generalizability of the findings from that data (Cano & Spohn, 2012). This evaluation of CS was also hindered by this limitation as all of the sentencing data is from a rather small city in the northeastern United States and thus the

generalizability of the findings is likely to be severely limited. Cano and Spohn's (2012) data was slightly more diverse as the authors noted it was pulled from three district courts across three states but that there would still likely be generalizability concerns with the findings from the data. Cano and Spohn (2012) also noted that their findings are likely to be limited by the restricted case-processing information available. This should also be considered a significant limitation to this evaluation of CS.

Spohn and Belenko (2013) investigated the impact that hard drug use at the time of crime commission and a history of drug use had on sentencing outcomes in the same three U.S. District Courts studied by Cano and Spohn (2012). It might also be noted then that the research conducted by Spohn and Belenko (2013) was based on previously recorded data. The authors found that hard drug use at the time of crime commission increased offender's chances of being in pre-trial custody which led to longer prison sentences on the back end. Although the current study is not interested in the type of drugs used at crime commission, it is likely that some offenders were using hard drugs at the time of their sentence or were even sentenced for using hard drugs.

The authors utilized regression analysis to determine what characteristics might predict longer sentences for offenders facing sentencing in the U.S. District Courts of Minnesota, Nebraska, and Southern Iowa. Furthermore, their analysis utilized dichotomous dependent and independent variables. This study similarly coded offenders dichotomously (i.e. drug and/or alcohol offender/non-drug and/or alcohol offender and future criminality as a yes or no). Length of sentence was coded in the number of months detained while this research coded sentence lengths in the number of days detained.

Rodriguez (2003) similarly utilized an ex-post facto design to study the impact that previous records and prior strike offenses had on sentence length. While the research is just outside the scope of this research study, the data collection and analysis methods are similar. Rodriguez (2003) began by collecting and reviewing 19,403 convictions that contained a strike offense in Washington State from 1993 through 1997. This evaluation of CS also utilized previously collected sentencing data in an effort to determine, in part, sentencing length.

Krebs and colleagues' (2009) study similarly utilized an ex-post facto study as did many of the previously reviewed studies. However, it should also be noted that the authors compensated for the lack of an experimental design by comparing groups from within their study population. This research study will utilize a similar technique to compensate for the lack of a true experimental design. Krebs et al. (2009) compared groups of residential, non-residential, and non-treatment substance abusers that were all sentenced to probation from July 1, 1995 to June 30, 2000. It might also be noted that their study was comprised of a total population of probationers from a set time period. Krebs et al. (2009) noted that the data was gathered from department of corrections records and from records collected by the Florida Department of Law Enforcement. Krebs and colleagues gained their findings from a review of all substance abusers sentenced to probation during a five-year time frame. This research study used data from a review of all offenders sentenced under the CS mandate over a ten-calendar year time frame. The authors did note that the generalizability of their findings will likely be very good as the population was gathered from across Florida rather than from one specific location. This issue, as has been noted previously, may slightly limit the generalizability of the findings from this study as the data was all gathered from one specific site in the northeastern United States. The

demographics from that county, as noted in chapter one, likely limited the findings to similar jurisdictions, regarding demographics and size.

For analysis sake, Krebs and colleagues (2009) compared the three populations of drug offenders against one another as part of their lifetime parametric survival models. These analysis techniques are different than the ones that were utilized in this study as the lifetime parametric survival models were available to the researchers as part of a computer based statistical analysis tool not available to this researcher. However, it might be noted that the analytical tools utilized by Krebs et al. (2009) are very similar to the regression models used for this research as they both utilize variables to predict which populations are more likely to recidivate based on the data available. It might further be noted though that Krebs and colleagues (2009) were able to track their population for 72 months while this research only tracked the population for 12 months post release.

Criminal Offense and Detention Length.

A further similarity is Rodriguez's (2003) use of regression analysis to determine which prior offenses are most likely to lead to longer sentences. Part of this evaluation of CS similarly utilized regression models to determine which offense categories were most likely to result in longer detention lengths. However, this research did not review past convictions; rather the presenting offense that led to the offender's probation sentence was utilized for the regression models. Rodriguez (2003) employed a past record score for each offender to not only measure previous offense seriousness but also to compile a cumulative number of previous offenses. Rodriguez (2003) also used extralegal variables like gender and race when completing the regression models. This evaluation of CS also utilized gender and race/ethnicity as extralegal variables.

Rodriguez (2003) found that minority offenders received shorter sentences than did the Caucasian offenders, younger male offenders received the longest sentences, and all offenses but burglary had a significant impact on sentence length. This study of CS also reviewed presenting sentences, subsequent sentence length, and the potential effect that gender and race of each probationer has on the entire process. Rodriguez (2003) also found that higher criminal history scores, which indicated more serious prior offenses as well as more previous offenses, also significantly impacted sentencing lengths. Finally, Rodriguez (2003) found that drug offenders with more serious criminal records were punished more harshly than were non-drug offenders. It seems as though the drug offense was a sentencing multiplier. This evaluation of CS similarly utilized drug offenses with relation to sentencing. This review of CS also included whether or not drug and/or alcohol offenders were more likely than non-drug and/or alcohol offenders to receive a detention stay as a result of their probation violation while on CS.

Rodriguez (2003) concluded with a consideration of the limitations of the research. The author noted that the study was limited due to the omission of information on the use of weapons during specific crime commission (Rodriguez, 2003). The use of weapons typically has a significant impact on sentence lengths and thus by not considering the use of weapons at crime commission, Rodriguez (2003) was not controlling for a significant aspect of the sentencing decision. This evaluation of CS did not have any specific sentencing modifiers to consider due to the fact that previous records were not considered.

The subject of treatment, graduated sanctions, and zero tolerance or severe sanctions has been previously noted. However, the impact that treatment versus non-treatment with regards to recidivism and future criminality has not been addressed. Krebs and colleagues (2009) reviewed the life histories of over 129,000 drug offenders in Florida to determine if residential or non-

residential treatment had better outcomes when considering future criminality. The authors found that, after 12 months of release, non-residential treatment had the best outcomes with regards to recidivism, followed by no treatment at all. Residential treatment options resulted in the lowest survival rates (no recidivism) (Krebs et al., 2009). The likelihood of recidivism among the three sample populations reviewed was further considered at 72 months post sentence. The findings at this stage were similar to those noted at 12 months. Non-residential treatment had the highest likelihood of survival, followed by no treatment and residential treatment (Krebs et al., 2009). It is interesting that the most demanding, in terms of restrictions to the participant, treatment module, that being residential treatment, was least likely to result in reduced recidivism. Put differently, it appears that, at least in this case, the most severe treatment option available to the court in the cases reviewed was least likely to result in reductions in future criminality.

Summary of Previous Literature.

The previous literature that was highlighted points to the fact that mandatory sentences and zero tolerance policies, especially those that emphasize long detention stays, often place undue pressures on offenders. Furthermore, the importance of judicial discretion in the sentencing process was noted. Steen et al. (2013) pointed to the fact that the process of judging “is a process of weighing evidence, of considering different perspectives and of determining a proportionate and effective social response” (p. 75) all of which are not possible under mandatory policies. Although Steen and colleagues (2013) were reviewing the parole revocation process in their research, the importance of discretion in decision making remains applicable to this research study. Simply eliminating the opportunity for discretion eliminates the opportunities to render individually tailored sentences for individual offenders with individual needs. Research

that adds to the existing knowledge regarding the effectiveness of mandatory sentences will, without question, benefit the entire criminal justice system.

Graduated sanctions, rather than longer detention stays, and the effect on drug offenders were reviewed and considered with regards to deterrence theory. Findings suggested that these types of sanctions often allow offenders to decide if they are ready to desist from drug related criminality on their own terms. Past research indicates that treatment itself is only as effective as the willingness of the offender to participate in treatment. Graduated sanctions allow for a middle ground between treatment and sanctions that focus on punishments first.

The effect that drugs have on the brain's chemistry was noted; research pointed out that drugs have a lasting effect on users and thus long-term treatment ought to be of strong consideration. The barriers faced by offenders re-entering society were pointed out. The fact that drug use only complicates and increases these barriers was also noted.

The effectiveness of similar mandatory policies was reviewed as were research studies that evaluated the policies. Research indicated that mandatory policies were marred with issues that hampered the effectiveness of the entire punishment and corrections process. The research studies utilized to evaluate the effectiveness of the mandatory policies noted above often shared similarities with regards to data gathering techniques and data analysis techniques. Many of those procedures are utilized in this research study.

What might be most important to summarize from chapters one and two is the importance of a study that reviews a mandatory sanctioning policy with regards to drug offenders and non-drug offenders. The problem at the foundation of this study is whether or not such policies are effective. Deterrence theory, being the theoretical framework of this research, highlights the utility of punishments. If the utility of a punishment is difficult to determine then that

punishment likely should be considered ineffective. Furthermore, treatment and graduated sanctions were considered with regards to previous literature. Detention might be considered the key variable to this research; however, the importance of detention length is not limited to this research as it may have implications for future research regarding the importance of graduated sanctions. Data from the Bureau of Justice Statistics indicated that while recidivism of drug offenders is similar to the recidivism rates of other types of offenders, the pace at which that recidivism has increased is much higher. The importance of investigating mandatory policies aimed at drug offending behavior should be evident when considering the previous chapters. The subsequent research questions outline this research with consideration to many of the issues noted previously.

Notes on Probation and Parole.

Probation itself is at the foundation for CS as it is a sanctioning mandate for adult probationers. Applegate et al., (2009) noted there were more than 4.2 million adults on probation across the country in 2006. As was noted above, for 2011 there were more than 6.9 million adults under probation supervision which is an increase of over 64% in just five years. Furthermore, there are about 1.9 million individuals incarcerated in the United States which illustrates that probation is by far the most widely utilized sanctioning method in the United States today. However, as Applegate et al., (2009) noted, there is little indication of the opinions of probationers in the existing literature. The authors further suggested that the knowledge currently available regarding the purposes of punishment is mostly limited to the philosophies behind punishment; there is little regard for the feelings offenders have towards punishment (Applegate et al., 2009). Such a condition creates an interesting paradox of outsiders offering their opinions which drive policy while those directly affected by policy changes have little input. Applegate and colleagues

(2009) set out to investigate what offenders think of probation in an effort to shed light on that paradoxical condition.

Applegate and others (2009) surveyed offenders sentenced to probation in order to review their perceptions regarding the effectiveness and purpose of probation as a sanction. The authors, by extension, also reviewed the probationers' feelings regarding the "traditional goals of corrections: rehabilitation, deterrence, incapacitation, and retribution" (Applegate et al., 2009, p. 80). Central to punishment is the association of said punishment with the behavior that initiated the reaction. If the sanction is not associated with a specific act then the relationship is lost. Paramount to the effectiveness of punishment is offender perception of the reasoning behind the punishment. Results of the survey research conducted by Applegate et al. (2009) indicated that over 90% of respondents either agreed or strongly agreed that they would rather give up criminality than receive probation again. The fact that a majority of respondents noted a link between being on probation and subsequent personal growth, and that a majority of respondents also noted that there was no point in probation (Applegate et al., 2009) is significant with regards to the effectiveness of probation. Furthermore, almost half of the respondents suggested that probation did little good for them (Applegate et al., 2009). These survey results emphasize the perceptions of probation that probationers have which is critical to consider due to the fact that CS is an adult probation based sanction.

Another issue when considering research on community based sanctions is the revocation process. Steen, Opsal, Lovegrove, and McKinzey (2013) studied the revocation process for parolees in Colorado in an attempt to gain an understanding of indicators that are likely to lead to revocation. Although this research focuses on parolees, probationers face a very similar revocation process. It should be noted that the findings may not be totally generalizable to a

probation population as parolees are coming out of prison after longer sentences, nonetheless some of the findings are quite striking and are likely applicable to probationers as well. In their analysis, Steen and colleagues (2013) found that parolees with mental health problems were more likely to be revoked from parole when compared to parolees that did not have mental health issues. This finding speaks to the potential harm that the mandatory aspect of mandatory sentences and sanctions can have on populations when judges and sentencing authorities do not have the proper availability of discretion. The authors concluded that providing this population with extra support may allow them to reduce their chances of being revoked (Steen et al., 2013). Furthermore, the authors noted that it is discretion that plays an essential role in the decision making process for parole boards (Steen et al., 2013). Although this study focused on parole boards and the findings may be specific to their interaction with parolees, it is important to note the impact of discretion. Although not a specific variable for this research, discretion is obviously an important consideration for sentencing authorities. Steen et al, (2013) highlighted its importance when considering parole, thus it should be a concern for future research.

When considering probation and discretion directly, Rodriguez and Webb (2007) found that mandatory sentencing options have actually eliminated the opportunity for sentencing authorities to utilize discretion. The authors were studying the effects of mandatory drug treatment strategies for offenders on probation when they made this finding. Again, the suggestion that discretion is lost when mandatory sentencing and sanctioning structures are in place may be outside the direct scope of this study, but the fact that discretion is likely to be lost or reduced suggests the potential for reduced effectiveness of the overall process. This observation is made due to the fact that the reduction of the court's discretion, because of mandatory policies, may eliminate the possibility for sentencing options that may be more

appropriate for specific offenders. Barkow (2012) noted that any system implemented to alleviate or eliminate discretion must strike a balance between individualization and uniformity. By eliminating the potential for such a balance by focusing on mandatory sentencing and sanctioning procedures, jurisdictions will likely be implementing an unsuccessful program. Furthermore, any reduction in the court's options may indirectly point to the overall ineffectiveness of a mandatory program as such programs can potentially disrupt the traditional court process.

Research Questions and Hypotheses

Q1: What is the effect of detention length on recidivism among all adult probationers sentenced under ABC County's zero tolerance sanctioning mandate?

H1: More detention days, when compared to less detention days, will be more detrimental than less detention days when considering recidivism among those offenders sentenced under the Certain Sanctions mandate.

Q2: What is the effect of longer detention lengths on drug and/or alcohol offenders when compared to non-drug and/or alcohol offenders with regards to recidivism within one calendar year of release from mandated detention under the same mandate?

H2: More detention days will have a negative impact, when compared to less detention days, on drug and/or alcohol users and a positive impact on non-drug and/or alcohol users when considering recidivism. A positive impact is an observed reduction in future law enforcement interactions while a negative impact is defined as increased interactions with law enforcement within one calendar year.

Chapter 3

Methodology

Data and methods.

This chapter discusses the major topics related directly to the data collection and data analysis in this study. The purpose of the study is revisited followed by the hypotheses. Data collection and analysis techniques are then described.

Current study.

In order to fill the gap in literature highlighted in the literature review an ex post facto evaluation research design will be implemented. Certain Sanctions (CS) has been a probation sanctioning policy since 2002; currently there are nine complete years of data available. This study will examine data from those nine years of CS in order to gauge the effectiveness of the sanctioning policy. Multiple research examples highlighted above, including that of Hawaii HOPE, were conducted in a similar manner, that being based on previously collected data. Effectiveness of the treatment offered to CS clients, that being the zero tolerance sanctioning policy that focuses on detention in response to violations, will primarily be measured by reductions in future criminal behavior. Furthermore, detention days will be examined with regards to the relationship sentence length has on recidivism.

Participants.

The data set utilized for this study included a population of 2,689 unduplicated adult probationers. These probationers represent a diverse population of both female and male adult probation clientele. The population itself is comprised of all adult probationers sentenced to CS in the first nine years of program implementation, thus the utilization of the term population rather than sample. It might be stated then that the sampling method for the population under

review for this research study represents a census as all CS clientele for the first nine years of the program will be included in the data analysis. The CS clientele entered in the database represent lower level offenders whose charges consist primarily of drug and/or alcohol offenses, low level property crimes, and low level crimes against the person. Demographics of the participants are limited to the gender and race/ethnicity of each CS client; there are no other identifying variables as each client represents an anonymous row in the dataset. Other demographic information is not available due to the original evaluation not collecting the data; having additional demographic data may have had an impact on the outcomes of this research but the ex-post facto design would simply not allow it as the data was not previously collected. This anonymity of CS client, limited client demographic information, and ambiguity of the actual location of the probation department should allow for the complete protection of individual level confidentiality.

A detailed description of how the dataset was built may assist in the understanding of future data analysis. The data was collected by county probation staff and sent monthly to an evaluator. CS is evaluated on a very minimal level annually, but an in-depth consideration of its effects with regards to a specific theoretical framework has yet to be completed. Once the evaluator receives the data from the probation department it is entered into an on-going database for each specific CS year. The CS year runs from March through the following April. Once entered into the database the evaluator verifies the data prior to annual analysis. Detention lengths must be calculated by the evaluator by reviewing the release information of each client in the adult probation department's online database. At this time the evaluator would also verify other pertinent information for each client.

Over the course of the entire nine year database there have been four total individual evaluators. It is these four evaluators who have been responsible for entering the data as it is

submitted from the county probation department. It might be noted that any concern for the reliability or validity of the data due to the multiple data entrants should be alleviated by the fact that the data has been entered into a consistent database model since the first evaluation period. The database has changed very little since year one of the evaluation.

Data collection instruments and variables.

Data submitted by the probation department is collected utilizing a generalized collection template. There is no specific data collection instrument then, rather a straightforward template with pertinent information. The template itself includes the offenders name, probation level, probation officer, presenting offense, any violations, violation types, date of detention, date of release, revocation, and any outcome information. It should be noted that once the data is entered and each case is cross referenced with the on-line probation database, the identifying variables for each participant are changed to anonymous identification numbers.

The primary dependent variable of concern for this study was recidivism, utilized to gauge overall effectiveness of the mandatory policy under review, which is defined as committing a further criminal offense within one year of release from CS mandated detention. Recidivism would be measured as a law enforcement interaction, i.e. an arrest or further violation, within one year of leaving detention as mandated by CS; these variables were coded with a "1" if an interaction is present and a "0" if an interaction was absent. This data variable will specifically address both RQ1 and RQ2. The categories used for the classification of presenting offenses are drug and/or alcohol offenses and non-drug and/or alcohol offenses. These offense categories were coded with a "1" and "2" in respective order. Any repeat offending observed will address both RQ1 and RQ2. Drug and/or alcohol offenders and non-drug and/or alcohol offenders were chosen as the primary delineation for the entire population due to the fact

that the researcher has hypothesized that mandatory sanction policies are unlikely to be effective for this population due to the fact that drug use is so prevalent among offenders as Zhang (2003) pointed out.

The primary independent variable of significance is detention length which was logged as days detained and type of offender which was coded as a “1” for drug and/or alcohol offender and as a “2” for non-drug and/or alcohol offenders. Detention days were coded continuously as the hypothesis predicts that longer detention lengths will lead to a reduction in recidivism. RQ1 is specifically concerned with detention lengths, thus this variable’s importance to the study. Other variables of relevance are the dummy variables to be used which included gender and race/ethnicity. Gender variables were coded with a “1” for male and “0” for female. Race/ethnicity was coded utilizing four variables. The coding for race/ethnicity included the following: “1” for Caucasian, “2” for African-American, “3” for Latino, and “4” for other.

Procedure.

This ex post facto research study utilized the pre-recorded data previously detailed to determine if a zero tolerance sanctioning policy is effective with specific consideration to drug and/or alcohol offenders and non-drug and/or alcohol offenders and deterrence theory. Edmonds and Kennedy (2013) noted that ex-post facto designs are appropriate when the research is conducted after the administration of treatment. Is a mandatory, zero tolerance sanctioning policy like CS an effective way to reduce future criminality in general and for the two offender categories identified in the CS population? This question is central to the research.

In order to address this question, the researcher utilized and manipulated the previously collected data that was identified and previously detailed. An ex post facto study is the only appropriate method for such a study as the sanctions have to have time to be completed.

Furthermore, any consideration of future criminality, defined as law enforcement interactions within one year of CS completion, have to have time to accumulate. It would be impossible to effectively study the populations without allowing time to pass for sanction completion and for one year to pass to measure future criminality.

Data analysis.

Data specific to addressing the problem of whether or not such a sanctioning policy is the relationship between sanction length and recidivism, and the relationships among sanction length, recidivism, and the type of offender. Once these data were reviewed and cleaned, analysis begin. Analysis included statistical tests to measure the relationships, significance, and general effectiveness of CS.

Analysis of the data regarding the effectiveness of CS included, but was not limited to, univariate, bivariate, and multivariate analysis. Included in those techniques was simple descriptive statistics, correlations, and regression analysis. The descriptive statistics included a description of the number of individuals within each category of the population, the number of individuals that comprise each gender, a breakdown of the race/ethnicities of the populations, and the total number of days detained (and average), and individuals who recidivated. Descriptive statistics allow the reader to better understand the frequencies and the measures of central tendency of a data set.

The data set also allowed for correlations between variables that have been collected in order to determine the relationships between those variables. For example, the researcher correlated the number of days detained with the presenting offense category to determine the relationship between these two variables. Correlation was also utilized to measure the relationship between the number of days detained and recidivism as well as with demographic

variables and days detained and recidivism. While all of these results will not be pertinent to this study, they may indicate future research directions. Huck (2012) and Salkind (2011) reported that correlations allow a researcher and reader to understand the strength of the relationship between two variables. Specifically, a point biserial correlational technique was utilized due to the nature of detention length and recidivism as variables. Detention length was coded as the number of days detained, or a raw score. Recidivism was coded as either having occurred or not having occurred, thus it will be dichotomous in nature. Huck (2012) noted that point biserial correlational techniques are an appropriate test when variables are both quantitative in nature and when one variable represents a raw score and one represents a dichotomy. The number of days detained per individual will be a reported raw score of detention. Recidivism was measured as an interaction with law enforcement within one calendar year of release from CS mandated sanction. Thus, this variable was either coded as having occurred or not having occurred; this variable is undoubtedly dichotomous then. Furthermore, Huck (2012) noted that when data is measured in true dichotomies and the researcher wants to investigate the relationship between two such pieces of data then phi correlation is appropriate. Examples of such circumstances for this research include the relationship between gender and recidivism or the relationship between presenting offense and recidivism, which are both true dichotomies.

Regression analysis, specifically logistic regression, allowed the researcher to analyze the likelihood of detention or future recidivism based on one or multiple variables directly associated with each client (Salkind, 2011). The researcher utilized logistic regression as the primary analysis to explain and/or predict the relationships between the independent and dependent variables. Huck (2012) reported that logistic regression allows for a researcher to predict or explain the relationship between a dependent variable and multiple independent variables that are

either continuous or categorical in nature. Furthermore, the use of logistic regression allowed for the researcher to determine the extent to which the independent variable played a role in explaining or predicting the dependent variable. The results from logistic regression also allowed the research to determine the odds of an increase or decrease in recidivism due to the increase or decrease in the amount of detention. Logistic regression is appropriate when the independent variable is continuous and the dependent variable is categorical (Huck, 2012); these are the same types of variables utilized in this study. Adding demographic information such as gender and race/ethnicity allowed the researcher to determine whether or not the relationship determined by the logistic regression is valid or if the control variables added dimensions that altered the relationship between the independent and dependent variables (Huck, 2012). Various other statistical tests, in addition to logistic regression, allowed for tests of significance with regards to the outcomes of those regression models.

Summary.

This ex post facto research design of CS addressed many of the concerns highlighted in the literature review regarding the contemporary gaps in the available literature. Carefully controlling for attrition and cautious utilization of statistical analysis yielded findings that are generalizable to any other CS population. Generalizability to a larger population that utilize mandatory policies is considered essential in an effort to fill the gaps in the literature that relate directly to the evaluation of harsh sanctioning policies.

Nagin (1998) noted that there is a strong correlation between the criminal justice system as a whole and deterrence but little evidence to suggest which aspects or mandates within the larger system are actually effective. Warner (2006) pointed to the need to evaluate the effectiveness of mandatory sentencing policies; the suggestion is pertinent to today's criminal

justice system as evidenced by the proliferation of mandatory sentencing policies noted in the multiple research studies previously noted (Lynch, 2011; Rengifo & Stemen, 2010; Smith et al., 2002). The need to evaluate more mandatory policies is evident. The proposed research study fits well into the existing research and the proposed methodologies fit that need well.

Chapter 4

Results

Descriptive statistics.

The purpose of this study was to determine the effects of detention length on recidivism on an adult probation population sentenced under a zero tolerance sanctioning policy (n=2,689). Any difference in the effects that longer detention stays, defined as more severe sanctions, have on drug and/or alcohol offenders compared to non-drug and/or alcohol offenders would also be considered. Descriptive statistics of the adult probation population are provided first, followed by a presentation of the results of multiple correlational techniques and the results of logistic regression model.

Below, Table 3 highlights the gender and the race/ethnicity of the adult probation population examined in this research study. For analysis purposes gender was coded as “1” for male and “0” for female. Male probationers made up the overwhelming majority of Certain Sanctions participants (n=2,251, 83.7%); less than one in five Certain Sanctions participants were female (n=438, 16.3%). Caucasians, coded as “1”, comprised the majority of the Certain Sanctions population (n=1,772, 65.9%) while African-Americans, coded as “2”, represented the next most populous racial/ethnic group (n=801, 29.8%). Latinos were coded as “3” and made up the third most populous racial/ethnic grouping (n=104, 3.9%) while others, coded as “4”, comprised the least populated grouping (n=12, .04%). However, since both the Latino and other racial/ethnic grouping represented such a small percentage of the population they were collapsed into one grouping for presentation purposes.

Table 3

ABC County Probationer Demographics – Gender and Race/Ethnicity

Variable	Count	Percent
<i>Gender</i>		
Male	2,251	83.7
Female	438	16.3
<i>Race/ethnicity</i>		
Caucasian	1,772	65.9
African-American	801	29.8
Other	116	4.3

Other pertinent descriptive statistics include the number of clients categorized as drug and/or alcohol and the number categorized as non-drug and/or alcohol. A description of the number of days detained by the population is also provided and the number of probation clients that had an interaction with law enforcement within a year of release (recidivism) is also presented as these two variables are the primary independent variables of interest. It should be noted that the results are presented in sequential order based on the corresponding research question. Results directly related to research question one are presented in entirety first; results pertinent to research question two are presented last.

Research Question 1.

Descriptive statistics, bivariate statistics, and multivariate statistics that focused on detention length and recidivism were utilized in order to determine the relationship between detention length and future criminality. More specifically, point biserial and phi correlations and

logistic regression were utilized to analyze the data to answer research question one. Discussion of these results can be found in chapter five.

Table 4 provides the descriptive statistics regarding the total number of adult probations that recidivated versus those that did not among the entire population under review. The majority of CS offenders did not recidivate (n=2,189, 81.4%); less than 20% of all CS offenders did have an interaction with law enforcement within one year of release from CS (n=500, 18.6%). It may be worth reminding the reader that research question one dealt specifically with recidivism and days detained of the overall population.

Table 4

Recidivism

Variable	Count	Percent
<i>Recidivism</i>		
Yes	500	18.6
No	2,189	81.4

Table 5 highlights the results of the correlation utilized for determining the relationship between detention length and recidivism. Point biserial and phi correlation were the primary bivariate methods to investigate relationships between variables as the data utilized for this research lacks any significant amount of measured raw scores; much of the data has been categorized into true or artificial dichotomies. Huck (2012) noted that point biserial correlation is appropriate when data is categorized into both raw scores and true dichotomies with the researcher investigating the relationship between the two. Huck (2012) also highlighted that when a relationship is measured between two sets of data that are both dichotomous, phi correlation is appropriate. The data set utilizes dichotomies such as gender, recidivism, and

presenting offense category among others thus the appropriateness of the use of the identified bivariate statistical measures

Research question one deals directly with the relationship between days detained (IV; raw score) and subsequent recidivism (DV; dichotomy). Point biserial correlation was utilized in an effort to determine the relationship between these two variables. The results from a review of the general relationship between the number of days detained and subsequent recidivism indicated a positive relationship between the variables ($r = .106$; $p < 0.01$); this relationship is pertinent to research question one and hypothesis one. There was a negative relationship when considering the type of offender and subsequent recidivism ($r = -.084$; $p < 0.01$). The graphic illustration of these coefficients as well as others can be found in Table 5.

Table 5 also includes the correlation results between all other variables collected, not just the independent and dependent variable. While these findings may be outside the direct scope of this research they may impact future directions of research directly related to this topic, thus their inclusion. Positive relationships included those between gender and presenting offense ($r = .047$; $p = .015$), gender and subsequent violations that were similar to the presenting offense ($r = .002$; $p = .922$), race/ethnicity and presenting offense ($r = .133$; $p < .001$), race/ethnicity and total days detained ($r = .078$; $p < .001$), race/ethnicity and subsequent violations that were similar to presenting offense ($r = .121$; $p < .001$), recidivism and total days detained ($r = .106$; $p < .001$). Other positive relationships included presenting offense and total days detained ($r = .061$; $p = .001$) and presenting offense and subsequent violation similar to presenting offense ($r = .475$; $p < .001$).

Negative relationships included gender and recidivism ($r = -.043$; $p = .026$), gender and total days detained ($r = -.036$; $p = .063$), gender and revocations ($r = -.054$; $p = .005$),

race/ethnicity and recidivism ($r = -.065$; $p = .001$), and race/ethnicity and revocations ($r = -.004$; $p = .821$). Other negative relationships included recidivism and presenting offense ($r = -.084$; $p < .001$), recidivism and revocation ($r = -.068$; $p < .001$), recidivism and subsequent violations similar to presenting offense ($r = -.044$; $p = .022$), and total days detained and revocations ($r = -.376$; $p < .001$). Table 5 also includes these results.

Table 5

Bivariate Correlation of Variables

	X1	X2	X3	X4	X5	X6	X7
X1	1.00						
X2	.007	1.00					
X3	-.043*	-.065*	1.00				
X4	.047*	.133**	-.084**	1.00			
X5	-.036	.078**	.106**	.061**	1.00		
X6	-.054*	-.004	-.068**	-.046**	-.376**	1.00	
X7	.002	.121**	-.044**	.475**	.196**	-.107**	1.00

Note: *=Significant at the .05 level. **=Significance at the .01 level. X1=Client's gender. X2=Client's race/ethnicity. X3=Recidivism. X4=Presenting offense. X5=Days detained. X6=Revocation. X7=Violation same as presenting.

The following section highlights the results of logistic regression which was utilized to determine the effect that days detained and type of offender had on recidivism. The results from the regression model are pertinent to both research question one, reviewed here, and research question two which will be presented next. Huck (2012) noted that logistic regression is appropriate when the relationship is between the dependent variable and either continuous or categorical independent variable/s. Furthermore, the use of logistic regression can be to explain or to predict outcomes based on the selected variables; the added use of odds ratios further

highlights the strength of the relationship between the dependent and independent variables (Huck, 2012). The complex relationship examined in this research will likely not result in any definitive answers with regards to the subject, but the results of the analyses regarding the relationships between the two might support the need for further research in this specific area.

Table 6 illustrates the results of the logistic regression utilized to examine the relationship between days detained, presenting offense category, and future recidivism. Research questions one and two and hypotheses one and two dealt directly with the relationship examined by the logistic regression model. Hypothesis one assumed that more days detained would negatively impact the likelihood of future law enforcement interactions; the author postulated that more days detained was related to higher subsequent recidivism. Demographic variables were also added to the regression model, however no other variables were considered as they were outside the scope of the research questions. Results highlighted in Table 6 indicate a statistically significant odds ratio (1.006) for total days detained.

Table 6

Logistic Regression of Variables

Variable	Recidivism		
	<i>b</i>	SE	Exp(<i>b</i>)
Total Days Detained	.006	.001	1.006*
Presenting Offense Category	-.446	.108	.640*
Gender	-.217	.129	.805
Caucasian	.049	.788	1.050
African-American	-.376	.790	.687
Constant	2.333	.826	10.309

Note: *Significant at the 0.001 level.

Research Question 2.

Research question two deals specifically with the dichotomous breakdown of the population under review into drug and/or alcohol offenders and non-drug and/or alcohol offenders. While research question one considered the impact that longer detention lengths had on recidivism of the adult probation population as a whole, research question two considers the impact that detention length has on recidivism among the two categories of the population. It might be noted again that recidivism, for purposes of this research, is defined as an interaction with law enforcement within one year of release from the mandate under review. Furthermore, for purposes of analysis, recidivism was coded as a “1” if the offender did have an interaction with law enforcement within one year of release and as a “2” if there was no observed interaction. In order to address this question descriptive statistics, cross tabs, and the logistic regression model noted in Table 6 were utilized. Discussion of these analytic tools can be found in chapter five.

Table 7 highlights the number of offenders within each category under review. Approximately 40% of the CS population were sentenced to probation for a drug and/or alcohol offense (n= 1,060). The majority of offenders under review were sentenced to CS for non-drug and/or alcohol offenses (n=1,629, 60.4%). The categorical breakdown of offense type among the CS population is almost exactly 60/40 which allowed for confidence in the analysis as neither category was considerably under-represented.

Table 7

Offender Presenting Offenses

Variable	Count	Percent
<hr/>		
Presenting Offense Category		
Drug and/or Alcohol	1,060	39.4
Non-Drug and/or Alcohol	1,629	60.4

Table 8 illustrates the mean number of days detained for each presenting offense categorization as well as the mean number of days detained for the entire population. Drug and/or alcohol offenders were detained, on average, for 41.03 days while non-drug and/or alcohol offenders were detained for 49.24 days. The mean days detained for the entire population considered was 46.01 days. The mean number of days detained was considered an important addition for comparison with the correlation and logistic regression analysis which were highlighted above and are readdressed below. It might be noted though that the large standard deviations might limit the predictive ability of days detained and recidivism. Discussion of these three statistics will be presented in chapter five.

Table 8

Mean Days Detained per Offense Categorization

Variable	Mean Days Detained	Standard Deviation
Drug and/or Alcohol Offenders	41.03	61.228
Non-Drug and/or Alcohol Offenders	49.24	67.832
Total Population	46.01	65.42

Table 9 illustrates the results from cross tabulations analyzing the number of drug and/or alcohol offenders who did or did not recidivate compared with the number of non-drug and/or alcohol offenders who did or did not recidivate. Previously, Table 4 illustrated the total number of clients that recidivated as research question one focused on overall recidivism. The results indicated that more, both in number and percentage of category, non-drug and/or alcohol offenders recidivated (346 to 154; 21% to 15%) when compared to drug and/or alcohol offenders. It should be noted that the results also indicated that more non-drug and/or alcohol offenders also did not recidivate (1,283 to 906), thus the need to determine if the variance between the populations is significant.

Table 9

Presenting Offense and Recidivism Crosstab

Recidivism	Presenting Offense Category	
	Drug and/or Alcohol Offender	Non-Drug and/or Alcohol Offender
Yes	154 (15%)	346 (21%)
No	906	1283
Total	1060	1629

The logistic regression model, with results found in Table 6, not only illustrated pertinent results for research question one, but also for research question two. Hypothesis two assumed that more severe detention lengths would result in less future interactions with law enforcement for non-drug and/or alcohol offenders and more future interactions with law enforcement for drug and/or alcohol offenders. The results below highlight the statistically significant odds ratios

of 1.006 for detention days and of .640 for presenting offense category when considering recidivism.

However, the researcher also conducted a logistic regression model for each population sub-group to determine if the likelihood of each sub-group recidivating was different. The results of those regression models are noted in Tables 10 and 11. Results from those tables illustrate positive unstandardized beta weights and statistically significant odds ratios of 1.009 and 1.005 for total days detained for each population sub-group.

Table 10

Logistic Regression of Drug and/or Alcohol Offenders

Variable	Recidivism		
	<i>b</i>	SE	Exp(<i>b</i>)
Total Days Detained	.009	.002	1.009*
Constant	1.496	.106	4.464*

Note: *Significant at the 0.001 level.

Table 11

Logistic Regression of Non-Drug and/or Alcohol Offenders

Variable	Recidivism		
	<i>b</i>	SE	Exp(<i>b</i>)
Total Days Detained	.005	.001	1.005*
Constant	1.110	.075	3.034*

Note: *Significant at the 0.001 level.

Chapter 5

Summary of Study

This study was conducted in an effort to determine if a zero tolerance sanctioning policy that emphasized swift and severe sanctions for adult offenders was effective in reducing recidivism. Of specific consideration was the impact that the emphasized longer detention lengths, mandated under the guise of CS, had on future criminality of the population studied. The population under review was a census of adult probationers sentenced to Certain Sanctions which is a zero tolerance, probation-based sanctioning policy. For purposes of this research the population was divided into two groups of offenders. The division was based on the probationer's presenting offense; presenting offenses were defined as those offenses that lead to a probationer's original sentence. The population was divided into drug and/or alcohol offenders and non-drug and/or alcohol offenders. Any offense that was directly related to drugs and/or alcohol was considered a drug and/or alcohol offense while all other offenses were categorized as non-drug and/or alcohol. This general division is important to point out since other offenses were not considered but could be directly related to drugs and/or alcohol offenses and may have had an impact on the results which are highlighted in chapter four.

Of specific interest to this research was the direct relation that severe sanctions, defined as longer detention lengths, had on recidivism in general and for recidivism among the two delineated offense categorizations. The rationale for categorizing and analyzing the population in such a manner is twofold. First, the population under examination is part of an ongoing sanctioning mandate that has never been fully evaluated or analyzed beyond simple descriptive statistics. Secondly, based on a review of existing literature, Certain Sanctions is an example of

an interesting dichotomy in that the concept behind the program has an extensive research base but the program itself is limited with regards to direct research.

The concept behind Certain Sanctions, as noted, is based in the Classical School of Criminology, deterrence theory, and just deserts which have all been reviewed and researched for decades. The Classical School was a founding philosophy of crime and punishment. Deterrence theory and just deserts are both based heavily in the Classical School's philosophies and theories. A common denominator among the theoretical concepts identified for this research is that human decisions are generally based in choice and that choice is weighed against the pros and cons of the action. Jeremy Bentham's postulation that human choice is based on the pursuit of pleasure and the avoidance of pain might be the overriding concept behind the selected theories, and thus the concept behind the implementation of Certain Sanctions and the importance of its subsequent research and evaluation.

Furthermore, it is important to reiterate the three elements of punishment as they are also paramount to this research. A punishment ought to be implemented in a swift manner so that the actor associates the punishment with the act it is punishing and the punishment ought to be certain, best defined as inescapable. The final element of punishment, and the aspect most essential to both Certain Sanctions and to this research, is severity. A punishment ought to be severe enough that it outweighs any pleasure gained from an outlawed act. As Bentham suggested, any reasonable man will seek the most pleasure with the least amount of pain. If the potential pain inflicted by a punishment outweighs the pleasure, then a reasonable man would likely be deterred from committing the outlawed act.

These aspects were considered heavily when crafting this research. The selection of recidivism, defined as any interaction with law enforcement within one year of release from CS,

as the dependent variable and total days detained and type of offender as the independent variables are consistent with the evaluation of the effectiveness of a program that relies greatly on the Classical School, deterrence theory, and just deserts. Generally, if a punishment is successful then recidivism ought to be reduced if not eliminated. To achieve that success, ever more severe punishments have been utilized as severity has seemingly been the most popular aspect of punishment among politicians and other officials and administrators. Much of the reasoning for this utilization was reviewed in earlier chapters, but the reiteration of the importance of punishment severity is essential prior to discussing the results of the research as detention length was found to be the most important variable to consider when attempting to predict recidivism. Furthermore, sentence length might be considered the most important independent variable of the research as detention length was noted in both research questions and hypotheses.

Also of importance when considering detention length, beyond its theoretical consideration, is the contemporary sentiment towards its use. Chapter two highlighted the increased emphasis that many jurisdictions have on imposing longer and more severe sentences. Although Certain Sanctions is a sanctioning policy, it likely suffers from many of the same drawbacks that hamper mandatory sentencing policies. First among these is whether or not such policies are effective with regards to their original intent, that being a reduction in future criminal behavior. Chapter two illustrated contemporary research, including Cano and Spohn (2012), Lynch (2011), Tonry (2011), Tonry (2006), Doob and Webster (2003), and Nagin (1998) among others that questioned the effectiveness of mandatory policies. This research specifically considered whether or not longer detention stays have a suppression effect on future recidivism.

Other characteristics of zero tolerance mandatory policies that Certain Sanctions might be able to directly relate to is the impact that zero tolerance sentencing, or sanctioning, policies have on drug offenders. Research highlighted in chapter two by Cano and Spohn (2012) pointed to the significant negative impact that mandatory policies have had on drug offenders. The authors highlighted that such policies have contributed to substantial increases in the overall prison population (Cano & Spohn, 2012). Increases in average sentence length attributed directly to mandatory policies was also noted as a concern when reviewing the impact of zero tolerance sentencing policies.

Judicial discretion was also noted in chapter two as a potential consequence of mandatory policies. Spohn and Belenko (2013) observed that mandatory policies have the potential to significantly reduce judicial discretion. The authors noted that the Federal Sentencing Guideline of 2008 recommended that factors such as educational history, employment history, substance abuse history, and family history should not be considered consistently relevant to the sentencing process (Spohn & Belenko, 2013). The elimination of such characteristics would likely impact fundamental aspects of the utility of punishment and the possibility of individualized punishments. The concerns surrounding mandatory policies highlighted in detail in chapter two and reiterated here further reinforce the importance of not only this research but of future research regarding the topic. Whether the emphasis of such research focuses on detention length, as this investigation has done, or on other topics such as sentencing outcomes with regards to demographics or social-economic factors, the importance of such research should not be overlooked. The findings from this research should be considered as an effort to evaluate the effectiveness of Certain Sanctions on the reduction of future criminality with explicit consideration to detention length and offender type.

The two research questions examine the interaction between detention severity, defined as more days of incarceration, and recidivism. Research question one focused on the interaction between detention length and recidivism. The associated hypothesis for this research question is that longer detention stays will result in more recidivism when compared to shorter stays of the entire Certain Sanctions population. Research question two considers the relationship that sentence severity, defined as lengthy detention stays, has on recidivism with regards to offender type; Certain Sanctions offenders were divided into drug and/or alcohol offenders and non-drug and/or alcohol offenders. The hypothesis for this research question is that more severe sanctions will lead to less recidivism for non-drug and/or alcohol users compared to drug and/or alcohol offenders.

The reasoning behind these two research questions and the hypotheses is based on both the theoretical framework for this research as well in the contemporary research highlighted in chapter two. The criminological theories associated with this research emphasize the utility of punishment. Whether it is the Classical School or if it is deterrence theory or just deserts, the general reasoning behind punishment is the usefulness of that punishment. Bentham suggested that a reasonable man will seek the most amount of pleasure and the least amount of pain. Thus, the punishment utilized to dissuade a reasonable man must outweigh that pleasure. This argument is the foundation for mandatory sentences and has been reiterated throughout this research. Nonetheless, mandatory policies such as Certain Sanctions have proliferated in the criminal justice system. The philosophy may appear sound but research questions that reasoning.

Contemporary research suggests that mandatory policies may not result in such a direct relationship. Rengifo and Stemen (2010) reviewed Kansas' Senate Bill 123 and found that offenders sentenced to mandated drug treatment did not recidivate at a lower rate than offenders

not sentenced to mandated treatment. Although Senate Bill 123 was not a sentencing mandate per se, it was a mandatory, zero tolerance policy, much like Certain Sanctions. Another issue that the authors highlighted was the possibility of net widening, a suggestion that since a new policy was available for offenders, due to Bill 123, judges may have been over zealous in its applications (Rengifo & Stemen, 2010). This widening of the net, or increasing the number of potential clients, is a distinct possibility for the Certain Sanctions population.

Other contemporary research noted in chapter two illustrated similar concerns about the relationship between mandated severe sanctions and future recidivism. Jordan and Myers (2011) found disconcerting results with mandatorily waived youth in Pennsylvania and their subsequent recidivism when compared to non-waived youth. Schnittker and John (2007), Lynch and Sabol (2004), and Petersilia (2003) all suggested that longer detention lengths may result in more advanced association with criminality. However, an evaluation of Hawaii HOPE, a similar probation-based zero tolerance program, found that the mandate resulted in fewer missed appointments, revocations, and recidivism when compared to traditional probationers (Hawken, 2010). These inconsistent findings reiterate the importance of this research. Is a mandatory, zero tolerance sanctioning policy effective in reducing future recidivism among adult probationers? The findings of this research do not offer convincing conclusions.

Results and Discussion.

The results and discussion are presented in the same fashion as in previous chapters, with a clear delineation of the research questions and associated findings. The results of data analysis related to research question one, which considered detention length and recidivism is presented first. Results from the analysis of research question two, which considered the impact of longer

detention stays on recidivism of drug and/or alcohol offenders compared to non-drug and/or alcohol offenders is presented last.

Research Question 1.

Multiple analytical techniques were utilized to determine the impact that detention length had on recidivism for the entire adult probation population. The primary variables of interest were future interactions with law enforcement, or recidivism, which was the primary dependent variable and the number of days detained, which was the independent variable. Descriptive statistics were utilized to identify the number of offenders that recidivated. It is noted that the majority of offenders under review did not recidivate; about 18% of offenders sentenced to the CS mandate had an interaction with law enforcement within one calendar year of release from CS. Point biserial and phi correlation were utilized to determine the relationships between the variables in question. A logistic regression model was the final point of analysis; the use of regression provides a certain amount of predictive ability regarding the interactions of the different variables. The regression analysis presents the most concrete findings. Table 5 illustrates that, with regards to severe sanctions and recidivism for offenders in general, there is a significant positive correlation ($r=.106$; $p < 0.01$) between the number of days detained and future criminality. This positive correlation, albeit low, suggests a relationship between the number of days detained and the future likelihood of recidivating. Furthermore, the results from the logistic regression model, found in Table 6, highlight that a one unit increase in detention length, defined as one day, resulted in an increase in the likelihood of recidivating by a factor of 1.006 which is statistically significant at the $p < .001$ level. These results suggest that, based on the population reviewed, an increase in the days detained has a significant increase on the likelihood of recidivism. This finding supports the hypothesis for research question one, that longer detention

stays will have a negative impact, when considering future criminality on the total CS population. These results are supported by some of the contemporary research, most notably that of Jordan and Myers (2011). It is noted that the primary inquiry of this research is the relationship not only between days detained and recidivism, but also between days detained and type of offender.

Furthermore, the finding that longer detention lengths are more likely to lead to a greater chance of recidivism might also find support in the suggestions from Doob and Webster (2003) and Lipton et al., (1975) as well as the research noted at the beginning of this chapter about the increased association with criminality among those individuals who have received an incarceration sentence of any length. Doob and Webster (2003) noted that there is little evidence to support the use of stiff sanctions while Lipton et al., (1975) suggested that recidivism that originates in settings of incarceration is likely a myth as there is little evidence overall regarding its presence.

Research Question 2.

The CS population under review was divided into two distinct groups to determine if detention length impacted either group with regards to future criminality. The presenting offense of each probationer was reviewed and categorized as either drug and/or alcohol offender or non-drug and/or alcohol offender. Results noted in Table 6 indicated that detention length was the most important predictive variable, thus logistic regression was again utilized to determine if there was a difference between the two population sub-groups. Other than the logistic regression, descriptive statistics were utilized to determine the impact of and relationship between detention length and recidivism of each offender group. Recidivism remained the dependent variable while offender categorization and detention length were the independent variables. The results of the

correlation analysis indicated that there was significant a negative relationship, albeit low, between presenting offense category and recidivism ($-.084$; $p < 0.01$) and a significant positive, but low, relationship between presenting offense category and days detained ($.061$; $p = 0.001$). These results suggest that it is detention length that is much more likely to impact recidivism rather than type of offender. The results of the logistics regression model, in conjunction with the correlation analysis, reveal what might be considered the most substantial findings of this research.

Table 6 illustrates the results from the logistic regression model to determine what the relationship is between days detained, offense category, and recidivism. It has already been established, in Table 6, that days detained is the strongest predictor, of the variables reviewed in this research, of recidivism. The results of the logistic regression model in Table 6 indicated that a one unit increase in days detained, defined as one additional detention day, increased the likelihood of recidivism by a factor of 1.006. The results indicated in Tables 10 and 11 indicated that a one unit increase in days detained resulted in the increased likelihood of recidivism among drug and/or alcohol offenders by a factor of 1.009; the same one unit increase in detention length increased the likelihood of recidivism among non-drug and/or alcohol offender by a factor of 1.005. Thus, drug and/or alcohol offenders were the more likely of the two groups to recidivate. Both relationships were statistically significant. The model indicated in Table 6 supported the findings in Tables 10 and 11 with the finding that a one unit decrease in presenting offense category, defined as moving from the categorization for non-drug and/or alcohol offenders to drug and/or alcohol offenders, increases the likelihood of recidivism by a factor of .640. The beta weights highlighted in Table 6 reinforce the odd ratios as the positive beta weight for total days detained and indicates that increases in days detained is related to increases in recidivism. The

beta weight for presenting offense category is negative, however, which indicates that the lesser categorized value, drug and/or alcohol offenders, is most likely to recidivate.

This suppression effect, noted by presenting offense being the weaker of the two independent variables with regards to the model, further highlights the observation that it is detention days that are the primary predictor of recidivism. It is noted that this finding is supported in Table 5 with the negative correlation of presenting offense and recidivism ($-.084$; $p < 0.01$). However, the data did illustrate that drug and/or alcohol offenders served a lower mean number of detention days when comparing the two offender categories (41.03 days for drug and/or alcohol offenders compared to 49.24 days for non-drug and/or alcohol offenders) which is a bit troubling given the fact that they were the most likely group to recidivate. However, there was not a concrete conclusion as to which sub-group was most likely to recidivate (noted in data in Tables 6, 10, and 11); the distinct reasoning for this is likely to be elusive but the number of days detained per offender and the broad offenders grouped into each sub-groups are likely the leading causes. The logistic regression models suggested drug and/or alcohol offenders were more likely to recidivate but their average number of days detained was less than non-drug and/or alcohol offenders which is interesting as days detained was determined to be the most important predictor variable. It is noted that this finding does correspond with the hypothesis for research question two, in that drug and/or alcohol offenders would be most likely to recidivate but detention length might not be a direct reason why, this aspect was discussed in the following paragraphs.

The results of this research, with consideration to days detained, offender categorization, and recidivism are likely to be explained by much of the contemporary research. First, days detained were the strongest predictor of future criminality. This finding was not surprising due to

the conclusions noted in chapter two that offenders who serve more time in a facility are likely to have a greater association with criminality (Schnittker & John, 2007; Lynch & Sabol, 2004; Petersilia, 2003).

The rationale behind drug and/or alcohol offenders being the offender group more likely to recidivate, at least according to the regression models used, might be found in the evaluation of Hawaii HOPE and in the discussion of graduated sanctions noted above. While the findings related to drug and/or alcohol offenders and recidivism did support the hypothesis postulated for this aspect of the research, the potential explanation might have been found in previously reviewed literature with regards to why this sub-group did recidivate more frequently. Hawken (2010) and Hawken and Kleiman (2009) found that drug offenders were less likely to recidivate when compared to other probation offenders, but the Hawaii HOPE probationers were required to submit to drug treatment programming. This finding could be explained in the literature regarding graduated sanctions. While CS is considered a zero tolerance, mandatory policy, consideration of the overall criminal justice system might lead to CS also being considered part of a set of graduated sanctions as it is a probation-based policy. While offenders sentenced to this mandate are expected to meet the strict guidelines of the policy, the fact remains that the offenders have still been given the benefit of not being sentenced to a detention facility. Offenders are still able to remain in the community under a more strict set of guidelines but also may suffer from remaining in the community that led to their original criminality. Thus, the literature noted by Wodahl et al., (2009) might be relevant with regards to the explanation of why drug and/or alcohol offenders reviewed as part of this research were more likely to recidivate. The original sentence to CS with the potential for zero tolerance sanctioning might be considered graduated sanctions in and of themselves rather than simply a single, harsh sanction.

Limitations.

The primary limitations to this study are the data and subsequent analysis. While logistic regression and correlation are widely accepted analytical tools, the fact that the research design is quasi-experimental is limiting. Since no true control group was introduced to the study there are concerns regarding the causal relationship of the variables, which suggests that any future research includes a control group of probationers or prisoners for comparison. Analysis provided findings about the size and direction of the relationship between the variables, but true causation is difficult to fully support.

An additional issue based on the available data and the subsequent research is the possibility for treatment misidentification. Bachman and Schutt (2011) identified treatment misidentification as a situation when it is not the treatment that causes an outcome but rather rival factors that the research was not able to identify. This was likely to occur in at least some of the cases due to the population size and the length of time under review.

Somewhat related to treatment misidentification is the collapsing of all offenders into two categories. Since the categories are so large and encompassing, the finding that recidivism and longer detention lengths among the two groups could be due to the broad offense types rather than due to any specific focus that those either offender subgrouping received. Furthermore, the rather large standard deviations, noted especially in average days deatined indicated considerable heterogeneity of variance within the subgroups. For example, it might be that those offenders that committed assaults against a person increased the average days detained or the likelihood of recidivating among the non-drug and/or alcohol offenders. Future research similar to this research should divide these categorizations into more detailed groupings in an effort to control for the possibility that offenses against the person might drive statistics up by themselves.

Generalizability is also a concern as the population under review was subject to the demographic limitations noted in Table 2. ABC County is not fully representative of minorities and thus any findings are likely limited due to the demographics of the population. Furthermore, the findings regarding race/ethnicity and recidivism should be carefully considered as the population of ABC County is not representative of minority populations. It is noted though that since the population under review is a census of the entire nine year population under CS, generalizability to other similar CS populations or to future CS populations in the same jurisdiction should not be a concern. Other issues related to the generalizability of the data to other populations include the fact that turnover has occurred in both judges and chief adult probation officers during the implementation of CS. This maturation is limited to only two judges and two chief probation officers and differences in opinion or policy will likely have little impact on the outcomes as the policy itself was based on zero tolerance and mandatory sanctions.

Other variables, such as violations accrued and revocations, were also collected as part of the initial evaluation and their inclusion may have had an impact on this and future research. However, they were not included in this study as there was no available comparison to determine if the mandated policy had an impact on them. These variables should be included in any future research that compares CS to standard probationers.

The methods provided a description of the data, the design, and the analysis that were utilized to test the relationship between a mandatory sanctioning policy and deterrence theory. This research illustrated an examination of the direction of the relationship between the variables as well as a test of the hypotheses. The statistics selected are the most favorable for the purposes of this research with regards to the data available.

The nine years of CS data available represented 2,689 unduplicated clients. Such a large number of cases should allow for the elimination of what Edmonds and Kennedy (2013) called the major threat to internal validity from ex post facto research designs, that being selection bias. However, other threats to internal validity such as history, maturation, and attrition should still be considered. Little can be done with regards to controlling for the effect of history. This research relied solely on official records from the adult probation department to collect quantitative data, thus data on the personal lives of the population was not be available. However, controlling for attrition and maturation was plausible as the very nature of sentencing itself and the use of an intensive probation mechanism such as CS rely on turn over. Thus, there was little effect to the internal validity due to maturation and attrition because of client turnover. It was necessary though to examine the data to control for these threats as well as to maintain validity and reliability. Cases with incomplete or questionable data were deleted as were any duplicated cases in an effort to maintain strict efficacy to the original intent of CS, that being a reduction in criminality due to zero tolerance and potentially harsh sanctions that followed probation violations.

Future research.

Primary among the future considerations for similar research is the importance of reviewing whether or not drug and/or alcohol offenders received treatment programs while under the influence of a zero tolerance mandate and what kind of treatment was offered. Treatment is likely to have a substantial impact on the possibilities of future criminality, especially among those drug and/or alcohol offenders. Treatment was not considered a variable in this research which is certainly a limitation when any comprehensive comparison to evaluations of Hawaii HOPE are considered.

A second consideration, with regards to future research, is a longer follow-up period than one calendar year. One year was the time frame for this research due to convenience and availability of data. Any future research might use at least eighteen months post release for a follow-up period with at least two calendar years being much more desired. A longer follow-up time frame might allow for a more accurate portrayal of recidivism. It is entirely possible, even probable, that many of the offenders who did not recidivate within one year of release did have an interaction with law enforcement after that one year deadline. Thus, a longer follow-up period would be advised in an effort to gain the most accurate information regarding recidivism as possible.

Future research might also review the probation department that facilitates the zero tolerance mandate as not all departments utilize the same techniques and styles. Hawken (2010) and Hawken and Kleiman (2009) both noted that the probation department that oversaw the implementation of Hawaii HOPE utilized motivational interviewing as a department wide technique. The use of this contemporary interviewing technique should be considered as its practice may have had an impact on recidivism. Contemporary research on motivational interviewing has found that the technique can increase the readiness and/or motivation to change as well as the likelihood that clients remain in treatment and can be used in conjunction with other evidence-based strategies (McMurrin, 2009; Walters, Vader, Nguyen, Harris, & Eells, 2010). The use of motivational interviewing with the population under review was not considered.

It is also recommended that future research not be limited to probation clients or even to only to adult clients. Jordan and Myers (2011; 2007) have conducted multiple studies regarding the stiff sanctions imposed on juvenile offenders; continued research in that area with a focus on

less serious offenders may be beneficial. A shift from focusing on probation for adult offenders should increase the overall knowledge of the topic as well. There are not many mandates exactly similar to CS, but the philosophy behind the policy is much more prominent, thus the inclusion of future research on similar policies among adult offenders.

Finally, it is recommended that and future research regarding CS ought to categorize offender types more specifically. The categorization of offenders into drug and/or alcohol offenders and non-drug and/or alcohol offenders alluded to the importance of treatment, especially since treatment was not a collected variable. However, the results indicted a fair amount of variance within the two groups of offenders; those in-group differences could have been due to the broad categorizations of offenders. For example, the drug and/or alcohol group included individuals who were initially arrested for DUI, public intoxication, and possession of a controlled substance, among other crimes. The non-drug and/or alcohol group included offenders initially arrested for simple assaults, petty larceny, bad checks, and disorderly conduct among many other crimes. Furthermore, it ought to be noted that the non-drug and/or alcohol group included individuals arrested for crimes against a person and crimes committed against property. In summary, the categorizations of drug and/or alcohol offenders and non-drug and/or alcohol offenders was likely too broad. In an effort to reduce some of the noted discrepancy future research might consider the addition of a variable that considers past criminal history score, if information is available, or a consideration to the severity of presenting offense if the researcher remains interested in the categorization of drug and/or alcohol versus non-drug and/or alcohol offenders.

Implications.

The implications for this study are limited as there is a significant need for future research focusing on the effectiveness of zero tolerance mandates, especially those that focus heavily on lengthy detention, similar to CS or Hawaii HOPE. However, there are a few implications from this research. First might be specifically for ABC County. With the knowledge that drug and/or alcohol offenders were more likely to recidivate than were non-drug and/or alcohol offenders, officials in ABC County may want to focus on appropriate programs for those drug and/or alcohol offenders in an effort to further reduce their recidivism. Second, and likely the most important finding not only for ABC County but also for the general criminal justice community, is that longer detention stays are the most significant factor in predicting future criminality. ABC County may want to review its mandatory policy when considering the future of CS. The use of more severe sanctions may be reevaluated or offenders who receive them can be more closely monitored and managed after release in an effort to limit recidivism.

The finding that more detention days impacts future criminality is, as noted, the most important finding. Contemporary research illustrates the possibility of greater association with criminality that may result from severe sanctions. The findings from this research appear to support that explanation. This research does not identify why longer detention stays lead to more recidivism, only that there is a significant relationship. Thus the use of harsh sanctions might be reconsidered as they appear to have a negative impact on offenders. Based on this research the specific deterrent effect of longer detention might seriously be questioned.

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