Effect of Length of Incarceration on Sex Offenders

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Throughout history, the psychology behind crime has been a source of great interest. Although argued from countless angles, the true psychological reason for crime remains a mystery. It has been established that some crimes are committed out of need and need only, but after that patterns are difficult to explain. Further, sex offenders, which make up approximately 11% of the United States' correctional facilities, are even more of a mystery. Sex offenses are recognized as being some of the most heinous crimes that someone can commit, so the psychology behind these offenders is of interest to many. It has been consistently debated whether these crimes are committed out of compulsive need, opportunity, a psychological imbalance, innate tendencies, or are a result of previous trauma. These different arguments will converge in this paper to address whether the length of time an offender spends incarcerated will dissuade them from committing another crime.

This paper will be analyzing the relationship between the amount of time a sex offender spends imprisoned and their tendency to reoffend. Because of the complexity of sex offenders, it has already been found that results vary greatly from study to study (Beauregard, 2010). The subjects of the study at hand will be Tennessee residents on the National Sex Offender Registry and data on them will be collected using various government websites. Tennessee will be used as a geographical boundary for this study to more clearly define the pool of subjects and confine research to the state in which it is being conducted. Because of this, numerical results can only be applicable to the state of Tennessee while all implications will still be able to be translated to a national scale. As previously mentioned, recidivism is defined as the tendency of an individual to reoffend. Incarceration is defined as the amount of time an offender spends in prison or under Department of Corrections supervision. The three subsections that will factor into this topic include the behavior of sex offenders, recidivism, and sentencing. This research paper addresses the following question: What is the relationship between a sex offender's length of incarceration and their tendency to reoffend? This paper will analyze this question through various perspectives and will look into how the United States government is currently addressing this issue.

Literature Review

Behavior and Treatment of Sex Offenders

Sex offenders are known for having different behavioral patterns than that of other criminal offenders such as thieves, violent offenders, gang members, etc. As a result, treatment of sex offenders while incarcerated has been a widely studied topic. While rehabilitation is an important variable within the imprisonment of offenders, the relationship between incarceration and reoffending is the main focus. Many studies have been conducted regarding the behavioral patterns of sex offenders, and it has been established that there are certain variables that sway the overall conclusion. Additionally, sentences are set by judges based on multiple factors, including the offender's criminal records ("Recidivism: Effect of", 2019). Each offender and offense have a unique set of factors, which are reflected in their sentence. An additional varying circumstance within the data collected in other literature reviews is the quality of studies that have been conducted. In another study, the literature review concluded with this statement: "The estimated effect of treatment varied significantly when restricting our meta-analysis to those studies that complied with the standards of good quality-" (Soldino, 2017). The authors of this specific study found that most of the data that had already been collected were forged from faulty or flawed research methods such as heterogeneity in studied groups, etc. Therefore, it is important to keep in mind that the results of each study done may lead to differing conclusions reflecting the diverse characteristics of different data collection processes.

Another factor that is involved in most studies is that they are conducted under a relatively short follow-up period (the stated length of time a person's health will be monitored over time after a therapy or intervention) that is around 5 years. Therefore, they yield contrasting results than those that have a follow-up period of 15-25 years. Studies that have been conducted under a longer time period have found that sex offenders become more dangerous over longer periods of time due to longer time frames for deviant behavior. Further, a study previously mentioned also found that research with 15-to-25-year follow-up periods show statistics with double the rates of re-offending than those studies with a shorter length (Rowlands et. al, 2021). As a result of this difference in the duration of previous studies, it is unlikely that a formal conclusion will be reached without additional research.

One important aspect of sex offender behavior that has been discovered through criminal profiling is that sex offenders tend to be very consistent with details such as the age and sex of the victim, the victims' physical traits, and geography. One source stated that sex offenders are consistent, versatile, and specific in their actions (Beauregard, 2010). As the comfort level of the offender grows, so does the intensity of the crimes. The traits that define the preferences of the offenders are usually derived from sexual fantasies that the offender wishes to play out. This study also found that an offender's criminal sexual fantasies influence

their choice in victim and location (Beauregard, 2010). The specificity of sex offenders points toward the fact that most sex offenses are motivated by specific sexual fantasies that began from a young age and slowly grew stronger. This explains why some sexual offenses are opportunistic while others are planned, reflecting how the growing comfort level and confidence of the offender can impact the details of the offense.

Considering the variations in sex offender behaviors, one of the main arguments that will be discussed in this paper is whether the behavior and crimes of sex offenders are caused by biological, or innate, neurological circumstances or, rather, if they are simply the result of conscious decisions that are able to be curbed. A study conducted by a neuropsychologist concluded that sex offenders typically show cognitive impairments (Joyal et. al, 2014). This conclusion, however, only represents one argument within the debate over sex offenders. Despite the vast number of studies conducted, results are still contradictory to each other. For example, another study mentioned that inmates who failed treatment such as therapy and impulse control exercises were more likely to reoffend than offenders who finished treatment (Bench et. al, 2013). Rehabilitation efforts such as therapy are usually a part of an offender's sentence and are carried out while serving time. Not only is treatment a part of the prison system, but it has been implemented into multiple states' laws as a mandatory part of criminal sentences. In states such as Florida, Georgia, and Wisconsin, "If the court could establish on reasonable grounds that an offender was at risk of committing violence due to a mental disorder or abnormality, he or she was held in a forensic facility until rehabilitated" (Rowlands et. al, 2017). Although therapy has been implemented in many states as mandatory for a prisoner's sentence, there are no significant patterns in re-offense to support the argument that it dissuades offenders from recidivism. It has also been found that sex offenders are statistically more likely to reoffend on a non-sex related crime than a sex offense ("Chapter 5:", 2022). Whether that change in statistics is due to the addition of rehabilitation into the sentencing of offenders is a nearly impossible thing to say, but it is certainly a statistic that future research can address.

Existing Recidivism Data

Recidivism is a common issue within the legal realm. It can be caused by a multitude of factors, but steps such as guided reintegration to society and education during incarceration have been taken in an attempt to reduce the rates of recidivism. This section will be analyzing the pre-existing rates of recidivism within the general criminal court system and whether it has been found in previous studies that an increased sentence length has an effect on reoffending for all types of incarcerated criminals.

There are two schools of theories revolving around the effect of incarceration on an offender: criminogenic and deterrent. Criminogenic theories support the idea that increased prison length increases chances of recidivism; one article states that this is because of unfair treatment of an

offender once released, that prisons are schools of crime, prison interrupts normal adult development, etc. (Rhodes et. al, 2018). Meanwhile, deterrent theories suggest that incarceration length helps dissuade prisoners from future crime. The reasoning behind this theory is that the experience of prison is so bad that it will deter future deviance (Berger & Scheidegger, 2021). Others argue that sentence length doesn't have an effect on offender recidivism, but that theory is mostly based on the lack of a definitive conclusion.

The United States government has conducted many studies on this topic, most likely in an attempt to reduce the crime rates within the US. The United States Sentencing Commission conducted a study on the effect of incarceration length on recidivism and found "a statistically significant deterrent effect for offenders incarcerated for more than 60 months...found no statistically significant effect for offenders sentenced to 60 months or less" ("Length of Incarceration", 2022). The graph below depicts the exact findings of this study.

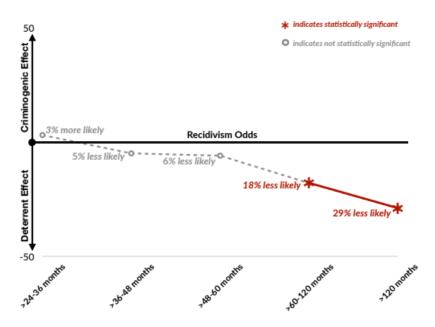


Figure 1. Impact of Incarceration Duration on Recidivism Rates: Findings from the U.S. Sentencing Commission

Most sources on this topic have found mixed results, which may point to the argument that recidivism is offender specific. Especially with the high rates of imprisonment, which one study describes as averaging a 400,000 prisoner increase each decade (O'Hear & Wheelock, 2016), results of these studies may show that recidivism has dropped even though those who would be reoffending are in prison. One study found that in

years past when more people were imprisoned, crime rates lowered, but now that incarceration is at its highest, the effect isn't as great (Skustad, 2020). This is yet another example of how past results may not be as reliable as formerly determined. These mixed variables and results that are being produced are contradictory, and it has come to the point where what is known about recidivism and time served is that there isn't much to be known. The findings of another literature review published in 2016 found some studies showed no effect of length of incarceration, others reduced recidivism rates, and some showed that incarceration increased recidivism (Mears et. al, 2016). Due to the mixed results of previous studies, the findings of this paper may not connect to an overall conclusion. It is of the utmost importance to remember that this issue may not have a definitive answer.

Sentencing

The final subsection of this literature review has to do with some of the proposed solutions to the ubiquitous problem that is recidivism. One example that revolves around the solution to recidivism is truth in sentencing. Truth in sentencing, or TIS, can be defined as the idea or action of an offender spending their entire sentence length incarcerated, without early release (O'Hear & Wheelock, 2016). TIS directly ties into the concept of prison having a deterrent effect on inmates. Many argue that if someone spends their entire sentence in prison, they will be less likely to recommit; a theory that has not necessarily been statistically proven. In fact, one article mentions that " ... harsher sentencing has failed to reduce crime in the United States" (Felton, 2016). Even though TIS may seem like a good solution to high crime rates with the reasoning that even if it doesn't help recidivism, at least these offenders are off the streets for longer, it isn't a very realistic solution. Another article states that although longer sentences have been imposed on average recently, crowded prison populations are causing high turnover rates (Rydberg & Clark, 2016). Prison overcrowding is a main source of overturn in the correctional facility, so even if TIS was a proven solution, it wouldn't be effective until prisons are less overrun.

Another proposed solution to this issue is the use of recidivism prediction in sentencing, or risk-based sentencing. Recidivism prediction is when psychologists or other medical professionals conduct psychological assessments to determine the risk of reoffending for certain inmates (Monahan & Skeem, 2016). The idea is that if the study of the offender's psychology and behavior is used in their sentencing, the offender will receive a sentence that best applies to their psychological tendencies and amount of time it will take to rehabilitate. The criminal court system already uses a sentencing strategy that reflects risk-based sentencing, in which the type of offense is deliberated along with the prior criminal record of the offender to determine a range of where the sentence should be set (Tonry, 2014). This sentencing procedure has been used to respect the Eighth Amendment, where no excessive punishment is

allowed. Although such a variation of risk-based sentencing is being used in court currently, many argue it is an unethical sentencing procedure. The first reason it is considered unethical is that risk calculations currently in use look mostly at factors that are related to the offender's socio-economic status (Lewis, 2022). This argues that because of the weight of socio-economic factors when predicting recidivism, the system is biased against those of lower status. The second reason that risk-based sentencing can be seen as unethical is that criminals with more offenses are punished much more severely than those on their first offense (Lewis, 2022). As criminal records are used to determine future risk of re-offending, this article argues that it is unjust how returning offenders are punished more harshly than first-time offenders. An additional article even states that the length of incarceration that is custom in the U.S. is not rational (Mauer, 2018). Risk-based sentencing also has its downsides, as is evidenced by these arguments.

Research Design and Methodology

Study Design

This study was designed to statistically evaluate the effect of length of incarceration relative to a sentence on offenders in order to best answer the question "What is the relationship between a sex offender's length of incarceration and their tendency to reoffend?" Therefore, the methodology was mostly mathematical. By employing a mixed-methods approach, this paper was based on the following methods: Longitudinal Analyses and Secondary Data Collection and Analysis. A longitudinal analysis can be defined as a research method where information from an extended period of time is gathered on each individual subject. Secondary data collection and analysis involves a researcher using data collected by another source for their own research purposes. The bounds of this study remain within ethical guidelines as all the information gathered is public record, so no permission or contact from the subjects was needed to collect data.

Research Instruments

All information was gathered from the Tennessee Sex Offender Registry, the Tennessee Department of Corrections (TDOC) Database, and the parole offices of each county selected. All information is publicly available and has been collected by various departments within the Tennessee State government. The ultimate goal of this study is to have it replicated on a national scale, so the research methods were designed with that outcome in mind. This can be seen through the large pool of subjects allowed by the subject selection guidelines, the use of percentages instead of dates, and lack of necessity for a qualitative aspect. The overall structure of this paper was modeled after *Assessing Sex Offender Recidivism Using Multiple Measures: A Longitudinal Analysis* by Lawrence L. Bench and Terry D. Allen. This paper was selected as a model because its observational properties are easily replicable and it employed offender tracking over time, which was the goal of this research

project. Although the model paper was a more experimental design, with the subjects undergoing treatment and the effects of treatment being recorded, the basis of the study revolved around statistical analysis and considered effects of incarceration over time on a statewide level. The offender selection process was also more deliberate in the model paper as the researchers selected participants based on eligibility for experimentation, while this study is purely observational. For these reasons, the longitudinal analysis process used in the model paper was replicated, but the offender selection method was original. All data was recorded, organized, and analyzed using various spreadsheets.

Subjects

In order to gather the most unbiased and accurate information possible to represent sex offenders in Tennessee, ten counties were selected randomly by a number generator and a list of all the counties located in Tennessee. Counties were randomly selected instead of chosen because the random selection process allows for data that is as unbiased as possible and provides results that can be applied to the entire state. The ten counties selected were as follows: Grundy, Scott, Claiborne, Putnam, Jackson, Monroe, Wilson, Wayne, Gibson, and Carroll. After each county was selected, ten offenders from each county were selected to make the final number of subjects 100 offenders. Each offender was selected based on the following criteria:

- 1. Committed their offense(s) during or after the year 2000.
- Is male.
- 3. Was at least 18 years of age at the time of the offense.
- 4. Had been found guilty of at least one sex offense.
- 5. Has completed their given sentence(s)
- 6. Is currently and was at the time of offense a citizen of the state of Tennessee.
- 7. Is currently a registered sex offender.

This paper employed selective methods to find its subjects because of the restrictive nature of subject qualifications. It was also necessary in order to maintain a productive balance between offenders with only one conviction versus more than one. All the offenders were found on the Tennessee Sex offender registry, and if the criteria were met, information was then gathered from the TDOC database and finally the parole offices of each county. Refer to figure 2 below.

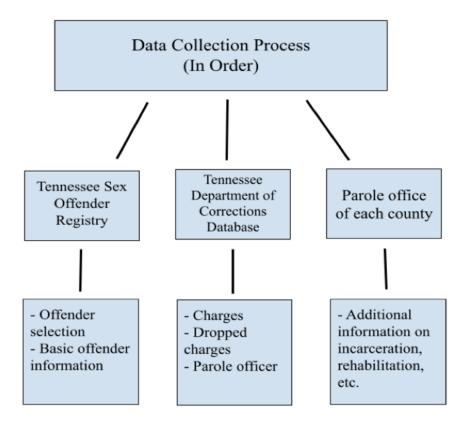


Figure 2. Data Collection Process

In order to collect the widest possible pool of information that could create the most accurate statistics, the following categories of information were collected on each individual offender: the crime (separated based on if multiple charges were committed at once), age at the time of the crime, race, if the convicted charge replaced a different (more serious) crime, sentence, percentage of sentence served, whether the sentence was served in prison, probation, or split confinement (part probation part prison), county, TDOC ID, probation officer, and number of dropped sex offense charges. Due to the varied input of information on government databases, as much information as possible was collected on each offender. After preliminary information was gathered on all ten offenders for that specific county, the gaps in data were filled in by the county's parole office. Each parole office for all ten counties was contacted, and the leader of each sex offender unit in the counties' parole offices was communicated with. All additional information gathered on the offender was through those officers and a representative at the TDOC headquarters. Correspondence was over either email or phone calls where the officers used their databases to fill in missing information.

Procedure

This study used multiple spreadsheets to organize data that had been collected on each offender. From there, the total number of days spent incarcerated for each offender was calculated, and with the number of days in their sentence serving as the 100%, the percentage of that the offender spent incarcerated was calculated. To keep the data as accurate as possible, all spans of time being used in the equation were translated into days.

The first spreadsheet created was a mass collection of information that served as either identifying information in case the offender needed to be researched again, additional information that could potentially be used for statistics (age at the time of the offense, race, how many dropped sex charges the offender has), and information that the paper was originally intended to analyze (sentence length, time spent incarcerated, etc.). Then, a second spreadsheet was created to organize the data most relevant to the research question such as sentence length, time spent incarcerated, and the percentage of the original sentence that was served. From there, the information was organized into different graphs and charts to display the data.

The percentages and averages found in this study were based around the length of the sentence, not the type of offense. This was because different variables within each case dictate whether a sentence will be longer or shorter than others of its type, so no reliable percentages would come out of the comparison of offense types without considering the qualitative factors that exist. Therefore, offenders were organized into groups based on the length of their sentences, (ex. six months, one year, etc.) and the percentages of their sentences they served were organized and recorded. Percentage of sentence served was used instead of amount of time served because the goal of the study was to analyze the effectiveness of the sentence given on re-offense, not the number of days spent incarcerated. The context of the crimes given would complicate the results of the study if days spent incarcerated were used, as some offenders were given a lesser sentence than others simply because the crime wasn't as severe. Overall, the only way to eliminate that complication was to use averages instead of actual time periods. These final averages serve as the results of the study paired with the percentage of offenders in that group who went on to commit another sex offense.

RESULTS

Overview

As the data in this paper is solely quantitative, no qualitative perspectives were used to reach the findings of the study. Further, as each offender's time incarcerated out of their sentence was turned into a percentage, the use of statistics to find results was limited. The results section mainly employs averages and graphs to depict the findings.

To achieve an organized, linear conclusion, the offenders' information was separated into two groups: those who served 50% or more of their sentence, and those who served less than 50% of their sentence. Doing so makes it easier to analyze if there is a correlation between length of incarceration and probability of re-offense. This separation is reflected in the organization of charts and graphs demonstrating the data.

Preliminary Results

The first thing to be addressed about the data that were collected is the number of true repeat offenders. Out of 50, only one subject falls within this paper's definition of a repeat sex offender. An operational definition for this is one who is convicted of one or more sex crimes, serves time, is released, and commits another sex offense after release. Therefore, the first conclusion to be drawn from this data is a term for the more common kind of offender with more than one sex offense conviction: a contemporaneous repeat offender. This term refers to a sex offender who has more than one sex offense, but the offenses were all tried at once and served consecutively. Although there was only one repeat sex offender that was involved in this study, there were many contemporaneous repeat offenders. In fact, they made up a clear majority of the pool of subjects.

This, considering that the study selected offenders randomly, displays the true rarity of an actual repeat sex offender. The study at hand was created in the idea that repeat sex offenders are extremely common, an idea that seems to be relatively widespread. Whether it be due to the media, social conspiracy, or of other origins, the notion that repeat sex offenders are a widespread issue appears to be false within the bounds of this study. As a result, the outcome of this paper is not what was expected at the beginning of the study and will reflect a different set of data points than originally anticipated.

Data

The results of this study are organized from three sets of data: number of convicted sex offenses, timeline of convictions for each offender (number convicted at a time), and percentage of time served. Number of convicted offenses will be addressed first. Refer to figure 3.1. This figure depicts the number of offenders from each county with only one conviction, two convictions, etc.

_		Number of Convicted Sex Offenses				
		1	2	3	4	5+
County	Grundy	6	2	1	1	0
	Scott	2	5	1	0	2
	Wilson	3	3	0	2	2
	Putnam	2	7	1	0	0
	Jackson	4	2	3	1	0
	Total	17	19	6	4	4

Figure 3. Number of Convicted Sex Offenses

This data reflects a logical progression of severity. One could argue that the miniscule number of offenders who had committed 4-5 or more sex offenses shows that repeat offenders are a minority, but there isn't enough data in this table to support that assertion. There is no tangible way to argue the reason for this pattern in the absence of further data, so this chart will most likely be best used when paired with other sets of data for analysis.

Next, refer to Figure 4 for the percent of their sentence each offender served.

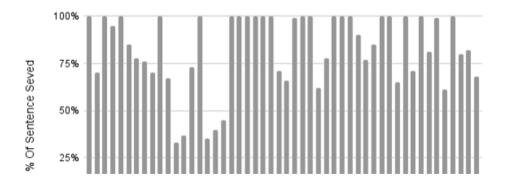


Figure 4. Percent of Sentence Served per Offender

The first analysis that can be made from the data is how 45 out of 50 offenders served over 50% of their sentence. It is important to note that each bar on the graph is independent of the others, they all represent one different offender. Consequently, any fluctuations in datum don't represent a pattern, solely that one offender served less than the other. Seeing as how the vast majority of participants served more than half of their sentence, no argument can be made about lack of appropriate incarceration length being an issue. Furthermore, the one offender who did reoffend, Offender Number 8, served over 75% of his sentence for his first conviction as seen in the chart.

DISCUSSION

This paper was designed to measure if there is an effect of incarceration of sex offenders on re-offense. The original hypothesis of this study predicted a parallel relationship between the length of incarceration relative to the sentence and recidivism.

Findings

Taking into consideration the number of offenders who spent more than half of their sentence incarcerated and the fact that random selection of subjects yielded only one true offender, it can be concluded that within the bounds of this study, there is no visible effect of length of incarceration on recidivism.

The first reason the initial hypothesis is being rejected is the infrequency of true repeat sex offenders. This study found that 98% of offenders within the pool of subjects were convicted of only one sex offense and although their sentences varied, none reoffended. What these statistics have revealed is that the offenders who served less than 50% of their first sentence had the same number of re-offenses as those who served 100% of their initial sentence: None. It is to be noted that this study did not consider the location of incarceration, offenders who served split confinement, in jail, and through probation were measured the same.

Although most likely applicable to the offender's decision to reoffend, the different sentence locations do not have an effect on recidivism within the bounds of this study as almost all results were the same.

The second reason for this is that the one subject who can be qualified as a true repeat sex offender served 76% of his first sentence, reoffended, served 91% of his second sentence, and reoffended once again. These statistics only further assert that the length of incarceration has no identifiable effect on recidivism as each of this offender's incarceration was over 50% of his sentence and there was no deterrent effect.

Fulfillment of Gaps in the Research

This study addressed multiple gaps in previous research. For example, the overall percentage of each sentence that the offenders served was a statistic left out of previous studies. Further, other studies were very nonspecific in data collection and analysis as a result of wide pools of data and multiple perspectives being addressed at once. As a result, data in other papers are difficult to interpret. One paper addressed in this study states "Overall, the literature on the impact of incarceration on recidivism is admittedly limited by important methodological considerations, resulting in inconsistency of findings across studies" (Berger & Scheidegger, 2021). The differences in methodology and focus in similar studies create a large and impactful rift in results, only contributing to the continued controversy surrounding the product.

Another gap this paper aims to address is to draw a connection between the length of incarceration for specific offenders and whether or not they reoffended. Although there is extensive research on length of incarceration and recidivism rates as individual variables, there aren't many studies that follow specific offenders and track their individual data points. The main goal of this study was to bridge the gap between those two variables and see if there is a relationship that hasn't been researched before.

Implications

The conclusion of this study can be used to inform members of the judicial system of the correlation between sentencing and re-offense within Tennessee State offenders. These results could cause local sentencing courts to re-evaluate their previous conceptions of sentencing length and even lead to increased discussion on rehabilitation during incarceration, possibly more in-depth research on rehabilitation methods. Because of the inability of this study to address rehabilitation, these findings could be used to encourage a similar study that takes treatment into account so findings can be compared. Further, the findings of this study could contribute to the debate surrounding psychology of sex offenders and help in reaching a final conclusion on whether these crimes are committed out of an innate compulsion unable to be cured or if there are methods of psychiatric treatment that can help. In addition, this paper may lead to a larger version of the research conducted, possibly on a nationwide scale,

and a more concise conclusion reached by those with higher authority and more resources.

Limitations

The limitations of this study consist of not detrimental, but still impactful variables. One such limitation is the lack of responses from parole officers. Through the data collection process, it became apparent that response times and quality of information given from participating officers posed a significant hindrance to the efficiency of the data collection. As a result of this setback, the number of participants the study was able to include and collect information on was reduced to 50.

Another limitation of this study was the accessibility of data. Although there are resources available to the public online with information on sex offenders, sentencing courts, and incarceration of certain felony offenders, the information was either inaccurate or incomplete. This led to the data collection process taking longer than expected.

Areas for Future Research

One of the main goals when creating the structure of this study was making it easily replicable. This was considered when designing the data sets especially. The subject pool can be easily expanded using government databases to fill in information more easily. This study can also be expanded by adding different circumstances such as age at the time of the offense, race, socioeconomic standing, etc. as the dependent variables in the study. The data collection process could even be widened to a national scale given the appropriate amount of time, resources, and software. Statewide correctional facilities could use this research outline to evaluate their own sex offender populations, or even narrow down the pool of subjects to certain classes of sex offenders such as violent offenders or offenders that are preferential toward children. The flexibility of the methods used in this paper allows for easily manipulatable subject pools and areas of focus while still achieving a concise and accurate set of data.

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