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August 5, 2010

Honorable Susan C. Helm
2090 Linglestown Road
Suite 100
Harrisburg, PA 17110

Re: Hearing to Assess Megan's Law Internet Registry

Dear Representative Helm:

I understand that you will be chairing a committee hearing on August 17, 2010, that will focus on questions involving the Megan's Law Internet registry. This is a area that I have followed with some interest since the legislation was first enacted in 1995. Unfortunately, I will be out of the state on August 17th and unable to participate.

In the past several years there have been a number of government and academic studies in other states that have evaluated similar legislation and raised important questions. In my absence I would like to bring two of those studies to the committee's attention. They are particularly relevant since they involve two of our sister states.

The first study was prepared by the New Jersey Department of Corrections, and is featured in an article published by U.S. Department of Justice entitled "Sex Offender Registration and Notification: Limited Effects in New Jersey."[1] A full version of the report appears in "Megan's Law: Assessing the Practical and Monetary Efficacy."[2]

The second study, based on data from the New York State Division of Criminal Justice Services, was released a year earlier. *See* "A Time-Series Analysis of New York State's Sex Offender Registration and Notification Law," Psychology, Vol. 14, No. 4, Public Policy and Law, pp. 284-302 (2008).[3]

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[1] http://www.ncjrs.gov/pdffiles1/nij/225402.pdf

[2] http://www.ncjrs.gov/pdffiles1/nij/grants/225370.pdf

[3] http://psycnet.apa.org/index.cfm?fa=search.displayRecord&uid=2008-18509-003 . *See also* LexisNexis, "Does a Watched Pot Boil?" 14 Psych. Pub. Pol. and L. 284.

I have enclosed copies of both studies. For the committee's convenience I will separately forward a PDF copy of this letter as an email attachment, along with PDF copies of the studies. I hope that the committee finds their analysis and conclusions to be of some assistance.

Very truly yours,

Karl Baker, Esquire
Chief, Appeals Division

enc.

**The Research & Evaluation Unit**
**Office of Policy and Planning**
**New Jersey Department of Corrections**

# Megan's Law: Assessing the Practical and Monetary Efficacy

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## EXECUTIVE SUMMARY

The research that follows concerns the various impacts of community notification and registration laws (Megan's Law) in New Jersey. Although this report includes a variety of interesting findings and many ideas that will be explored upon post grant period, this research was embarked upon, in general, to investigate: 1) the effect of Megan's Law on the overall rate of sexual offending over time; 2) its specific deterrence effect on re-offending, including the level of general and sexual offense recidivism, the nature of sexual re-offenses, and time to first re-arrest for sexual and non-sexual re-offenses (i.e., community tenure); and 3) the costs of implementation and annual expenditures of Megan's Law. These three primary foci were investigated using three different methodologies and samples.

Phase One was a 21-year (10 years prior and 10 years after implementation, and the year of implementation) trend study of sex offenses in each of New Jersey's counties and of the state as a whole. In Phase Two, data on 550 sexual offenders released during the years 1990 to 2000 were collected, and outcomes of interest were analyzed. Finally, Phase Three collected implementation and ongoing costs of administering Megan's Law.

The following points highlight the major findings of the three phases of the study.

- New Jersey, as a whole, has experienced a consistent downward trend of sexual offense rates with a significant change in the trend in 1994.
- In all but two counties, sexual offense rates were highest prior to 1994 and were lowest after 1995.
- County trends exhibit substantial variation and do not reflect the statewide trend, suggesting that the statewide change point in 1994 is an artifact of aggregation.
- In the offender release sample, there is a consistent downward trend in re-arrests, reconvictions and re-incarcerations over time similar to that observed in the trend study, except in 1995 when all measures spiked to a high for that period. This resulted in

significant differences between cohorts (i.e., those released prior to and after Megan's Law was implemented).

- Re-arrests for violent crime (whether sexual or not) also declined steadily over the same period, resulting in a significant difference between cohorts (i.e., those released prior to and after Megan's Law was implemented).
- Megan's Law has no effect on community tenure (i.e., time to first re-arrest).
- Megan's Law showed no demonstrable effect in reducing sexual re-offenses.
- Megan's Law has no effect on the type of sexual re-offense or first time sexual offense (still largely child molestation/incest).
- Megan's Law has no effect on reducing the number of victims involved in sexual offenses.
- Sentences received prior to Megan's Law were nearly twice as long as those received after Megan's Law was passed, but time served was approximately the same.
- Significantly fewer sexual offenders have been paroled after the implementation of Megan's Law than before (this is largely due to changes in sentencing).
- Costs associated with the initial implementation as well as ongoing expenditures continue to grow over time. Start up costs totaled $555,565 and current costs (in 2007) totaled approximately 3.9 million dollars for the responding counties.
- Given the lack of demonstrated effect of Megan's Law on sexual offenses, the growing costs may not be justifiable.

## INTRODUCTION

On July 29, 1994, Jesse Timmendequas, a sex offender who had been released after serving a maximum sentence in a New Jersey correctional facility, raped and murdered seven-year-old Megan Kanka in Hamilton, New Jersey. The intense community reaction that followed extended well beyond the state. One expression of community outrage was the enactment of laws to notify the public of the presence of sex offenders living and working in their community. The premise was, and still is, that with this knowledge, citizens will take protective measures against these nearby sex offenders. As Beck, Clingermayer, Ramsey and Travis (2004) note, "Exactly what action is expected is not clear, but it is hoped that, armed with this critical information, citizens will work on their own or in concert with government to make their neighborhoods safer" (p. 142).

During the following decade, all 50 states and the District of Columbia enacted some version of such community registration and notification laws, collectively referred to as "Megan's Laws" (Presser & Gunnison, 1999; Zevitz & Farkas, 2000). Although a few states, such as Washington, had enacted community notification laws prior to 1994, the federalization of community notification laws in 1996 created strong incentives for other states to follow suit (Presser & Gunnison, 1999).

The legislation known as Megan's Law, includes both registration and notification. Sex offenders must register their addresses with local police jurisdictions within a specified time of release from prison. By way of the registration process, the public is then notified of the offender's presence in the neighborhood. The goal of notification is to inform both the public and past victims so that they can protect themselves accordingly. As with other states, registration

and notification are separate steps in New Jersey, but are often referred to as one process. In New Jersey, offenders are placed into one of three tiers, representing a hierarchy of potential risk of an offender's re-offense. A risk assessment instrument is used to predict the offender's likelihood of re-offense, which ultimately determines placement into the tier. Tier one represents the lowest risk and requires only notification of law enforcement officials and the victims. Offenders are considered low risk and eligible for a tier one placement if they received a low risk assessment score and are on probation/ parole, receiving therapy, employed and free of alcohol and drugs. A tier two classification represents a moderate risk of a re-offense. It requires notification of organizations, educational institutions, day care centers and summer camps. The factors for placement into a tier two category include a moderate to high risk assessment score, failure to comply with supervision, lack of employment, abuse of drugs or alcohol, denial of offenses, lack of remorse, history of loitering or stalking children and making threats (Brooks, 1996; Matson & Lieb, 1997; Witt & Barone, 2004). Tier three offenders are those who are predicted to present the greatest risk to re-offend. This category has generated the most legal resistance because it calls for the broadest level of notification. The entire community is notified through posters and pamphlets. The factors necessary for the placement into a tier three category are a high probability of re-offending evidenced by a particularly heinous instant offense or a high-risk assessment score, repetitive and compulsive behavior, sexual preference for children, failure or refusal of treatment, denial of the offense and lack of remorse (Brooks, 1996; Rudin, 1996; Witt & Barone, 2004).

Despite their existence for over a decade, little work has been done to examine the effectiveness of these laws on sexual offense rates. A few researchers, such as Beck and colleagues (2004), have conducted surveys to determine what protection methods community

members use when given information regarding the presence of sex offenders. Beck and colleagues (2004) approach their research from the viewpoint that community notification laws were enacted more to change the behaviors of potential victims than those of potential sexual recidivists. In this study, Beck and colleagues (2004) differentiated between two types of protective measures: (1) "self-protective measures," or behavioral measures initiated by the potential victims themselves; and (2) "altruistic protective measures," or behavioral measures initiated by family members to protect other household members (e.g., their children) (Beck & Travis, 2002). These studies found that community notification did, in fact, increase altruistic behaviors by community members to protect members of their households, although the findings are inconsistent with regard to whether self-protective behaviors increased after community notification. Because of these results, Beck and colleagues (2004) posit that it is not the enactment of community notification laws themselves that influences protective behaviors, but the community members' perceived risk of victimization (also measured in these surveys) that mediates these behaviors. This mediating factor presents problems for identifying the true effect of these laws on sexual recidivism rates.

A few studies have also surveyed sex offenders to determine the impact that community notification laws have had upon them. Tewksbury (2005) found that social stigmatization, loss of relationships, employment and housing, and both verbal and physical assaults were experienced by a significant minority of registered sex offenders (see also Tewksbury & Lees, 2006). Zevitz and Farkas (2000) also found that a majority of sex offenders reported negative consequences, such as exclusion from residences, threats and harassment, emotional harm to their family members, social exclusion by neighbors, and loss of employment. Furthermore, according to many tier three offenders interviewed, these laws would not deter them from committing future

sex offenses (Zevitz and Farkas, 2000). In fact, Presser and Gunnison (1999) suggest that notification laws may be counterproductive in that public scrutiny causes additional stress to offenders who are transitioning back into the community. The fear of exposure may cause offenders to avoid treatment, and in the case of pedophiles, may encourage offenders to seek out children as a result of adult isolation. If these assumptions are true, the risk of recidivism may be increased (Presser & Gunnison, 1999), or at least such factors would work against any protective measures taken, thus lessening or eliminating any positive effect of the law.

None of the aforementioned research, however, addresses the critical question of whether community notification and registration laws actually reduce sex offense rates (primary offenses or re-offenses) in the communities in which the laws are applied, or what patterns of sexual offense rates appear. Despite Megan's Laws being in effect in all 50 states, only one study was found that examines pre- and post-Megan's Law sex offense rates. That study, conducted in the state of Washington, compared sexual recidivism rates between two groups of sexual offenders: one released three years prior to the implementation of community notification laws in that state, and one released three years after the implementation. The pre- and post- target groups were those most likely to be affected by the law (i.e., those who would qualify for tier three classification). To account for population differences, offenders in both groups were matched on the number of sex convictions and the type of victim (i.e., adult or child) (Schramm & Milloy, 1995). Their analysis of potential group differences revealed that at the end of 54 months (four- and one- half years "at risk"), there was no statistically significant difference in the arrest rates for sex offenses between the two groups (19 percent versus 22 percent). However, the study did find that notification had an effect on the time of the next arrest for any type of offense.

Offenders subject to notification were arrested for new crimes much more quickly than were offenders not subject to notification. (Schramm & Milloy, 1995).

These results suggest that Megan's Laws may not be effective in reducing recidivism rates. One can make a case, in fact, that Megan's Law, at least as implemented in Washington, had no effect on the rate of sex offense recidivism, although it may result in more rapid detection of new sex offenses (see discussion in Pawson, 2002).

This lack of outcome studies means that Megan's Laws constitute an untested mandate in the domain of empirical research. Despite widespread community support for these laws, there is virtually no evidence to support their effectiveness in reducing either new first-time sex offenses (through protective measures or general deterrence) or sex re-offenses (through protective measures and specific deterrence).

The study described below investigates various impacts of community notification and registration laws (Megan's Law) in New Jersey. The primary areas of study are: 1) the effect of Megan's Law on the overall rate of sexual offending over time; 2) its specific deterrence effect on re-offending, including the level of general and sexual offense recidivism, the nature of sexual re-offenses, and time to first re-arrest for sexual and non-sexual re-offenses (i.e. community tenure); and 3) the costs of implementing and maintaining Megan's Law. These three primary foci were investigated using three different methodologies and samples.

Phase One was a 21-year (10 years prior and 10 years after implementation, and the year of implementation) trend study of sex offenses in each of New Jersey's counties and the state as a whole. In Phase Two, data on 550 sexual offenders released during the years 1990 to 2000 were collected, and outcomes of interest were analyzed. Finally, Phase Three collected implementation and ongoing costs of administering Megan's Law.

## PHASE ONE: THE TREND STUDY

This study attempts to remedy one aspect of the gap between the lack of research and the legislation, by examining the trend of sexual offense rates between and within the 21 counties of New Jersey from 1985 through 2005. The study was conducted in New Jersey, the state in which Megan Kanka was a victim and the subsequent origin of Megan's Law. Phase One is a trend study, which will provide information on whether statistical differences exist in sex offending arrests before and after the implementation of Megan's Law.

The trend analysis focuses on the pattern of sexual offense rates in New Jersey over a 21-year timeframe while comparing them to drug offense rates and non-sexually based offending rates. The data represent crime rates for the state as a whole and for each of the 21 counties for the ten years prior to the legislation and the ten years after the enactment of the legislation and includes the first full year in which Megan's Law was implemented (i.e., 1995).

### Methods

The purpose of this study is to determine whether Megan's Law had an effect on the rate of sexual offending in New Jersey. Several different analyses were conducted to answer this primary question. First, a trend analysis of New Jersey sex offense rates pre- and post-Megan's Law implementation provides both a visual and statistical test of effectiveness. Second, aggregation sometimes masks important differences at a lower level. Therefore, the same trend analyses were conducted on each of the 21 counties in New Jersey. Third, historical effects broader than that solely for sex offenses may be responsible for observed changes (i.e., an observed effect of Megan's Law may be spurious). Two comparative analyses at the state level

were conducted to contrast changes in rates of sex offenses to other offenses (i.e., drug and other non-sex/non-drug) over the same period of time. These additional analyses were made in an effort to place sex crimes in the context of overall crime and a specific crime (drugs) that has been subjected to several types of legislation.

***Sample and Data Collection***

This study is based upon a simple pre-post research design to determine whether any significant changes in the rates of sexually based offenses reported by law enforcement agencies occurred after the implementation of New Jersey's Megan's Law in late 1994. Rates for sexually based offenses, non-sexually based offenses, and drug offenses were collected for the years 1985 through 2005 in order to construct a comparative trend analysis. Data for the three types of crime were collected for all 21 counties of New Jersey, using Uniform Crime Report (UCR) numbers for years 1985 through 2005. Prevalence rates for the three offense categories were established using population estimates from the Department of Labor's Bureau of Labor Statistics. The Department of Labor's population estimates for New Jersey were cross-referenced with the Sourcebook of Criminal Justice Statistics, a yearly federal government publication. Because no significant differences in population estimates were found between these two sources, UCR numbers were used for trend analyses conducted in this study. In order to compare state and county trends in sexually based offenses, non-sexually based offenses, and drug abuse violations, UCR aggregate numbers and prevalence rates for years 1985-2005 were entered into an Excel spreadsheet and SPSS.

***Definitions and Measures***

Uniform Crime Report statistics are based upon number of arrests, and as such, use of the term "offenses" in this study refers to number of reported arrests. Three crime categories were

used for trend analysis comparisons: 1) sexually-based offenses, 2) drug offenses, and 3) other offenses (non-sex/non-drug). Analyzing the single set of sex offense rates for the 21-year time span provides an initial test of rate change. Across the US, crime rates in general have been dropping since the late 1990's. The inclusion of all New Jersey non-sex/non-drug crime rate trends presents a visual contrast: (1) to confirm/disconfirm the national trends, and (2) to contextualize the sex offense rate trend within the general trends. Other offenses allow a control for New Jersey specific historical factors that might influence rates across crime categories, such as increased or decreased enforcement or prosecutorial budgets, the number of police or probation officers, or aggressiveness of prosecutors' and the State Attorney General's offices.

Drug offenses, like sex offenses, have been the target of law enforcement policies. Although drug offense rates may change over time based upon what drugs are most common, drug arrests rates are also particularly vulnerable to changes in federal and local policies and law enforcement efforts. Furthermore, although the contrast between drug and sex crimes may not be immediately obvious, the inclusion of drug offense rate trends provides an opportunity: (1) to demonstrate the variations in rates over time, and (2) to evaluate whether these variations have similar patterns to those of sex offense rates.[1]

These crime categories were based on the state's Uniform Crime Report (UCR), a yearly statistical report based upon crimes reported to law enforcement agencies throughout the State of New Jersey. Definitions of certain sexually-based crimes, such as rape, were clarified via phone interviews with the New Jersey State Police in December 2006. In addition, legal definitions of specific crimes (e.g. endangering the welfare of a child) were verified by reviewing Title 2C of the New Jersey Code of Criminal Justice in LexisNexis Academic. Because "Rape" is designated

[1] No formal statistical tests were performed contrasting drug and non-sexual offense rates to sex offense rates. The visual displays are used to provide general contrasts, only.

as a separate category by the UCR, the UCR categories "Rape" and "Sex Offenses" were combined under the category "Sexually-Based Offenses" for the purposes of this study. The category "Non-Sexually Based Offenses" is comprised of all UCR categories except "Rape", "Sex Offenses" and "Drug Offenses". Furthermore, "Drug Offenses" included various types of drug crimes, such as the manufacturing and distribution of controlled substances, possession with the intent to sell and distribution of a controlled substance within a school zone.

***Analytic Strategy***

In studies of this type, typically a simple pre-post test of rates is conducted to determine whether an intervention is successful. Given that these data are points in time, namely crime rates by year, time based strategies are commonly used, including time-series/ARIMA models and regression discontinuity designs that allow for temporal autocorrelation. These analyses are constructed based upon a known change point. Although it is known that Megan's Law was passed in late 1994, it is not known when the agencies charged with implementing the law were fully prepared to do so. Further, Megan's Law may not have been uniformly implemented across the state at a standardized point. The earliest change point that might be attributed to the legislation, therefore, is between 1994 and 1995. Given delayed implementation, the true effect of the legislation may occur during a subsequent year. For this study, a method is required that will allow for the detection of such delayed effects.

Several authors have considered the problem of change-points (see Pettitt, 1979 for a brief review). Some make assumptions regarding the nature of the pre- and post-change sample distributions. Most assume that the change-point is known. Pettitt (1979) offers a solution to the crime trend problem by suggesting a method of determining the most probable point of change

and using a non-parametric procedure to test for significance. The logic of Pettitt's argument is summarized below.

Assume a sequence of random variables; X1, X2, … , $X_T$ and a change-point at $\tau$, where $X_t$ for $t = 1, \ldots, \tau$ have a distribution function of $F_1(x)$ and $X_t$ for $t = \tau+1, \ldots, T$ have a distribution function of $F_2(x)$ and $F_1(x) \neq F_2(x)$. Since the change-point is unknown, $T$-1 two sample comparisons are necessary. In the complete sample of $T$,

$$U_{t,T} = 2W_t - t(T+1)$$

where $W_t$ is the sum of the ***ranks*** of all observations from 1 to $t$. This produces a U statistic for each point in the time series comparing the mean of the series prior to $t$ with the mean of the series after $t$. A version of the Mann-Whitney U statistic, used to test that the two samples, X1, … , $X_t$ and $X_{t+1}$ , … , $X_T$, come from the same population, is applied to the maximum U value:

$$K_T = \max_{1<t<T} |U_{t,T}|$$

The approximation of significance probabilities that is associated with $K_T$ is:

$$P \cong 2 \exp(-6k^2/(T^2 + T^3))$$

where the approximation holds accurate to two decimal places for $p < .5$ (Pettitt, 1979).

This analysis employs this technique used to determine significant differences when the change point is unknown. This technique was selected specifically because we did not want to make any assumptions regarding the implementation phase. In most cases, where a law requires changes to procedure, the effect is likely to be delayed by some unknown period.

Data from the 21 New Jersey counties were entered separately, the New Jersey total was aggregated from the counties' summary numbers and the resulting rates were adjusted for year-to-year population changes at the state level. For each county and for the state as a whole, the

yearly rates were rank ordered and a Mann-Whitney U test was performed to test for a change in trend. Thus, for the state and for each county, every year is tested as a potential change point.

## Results

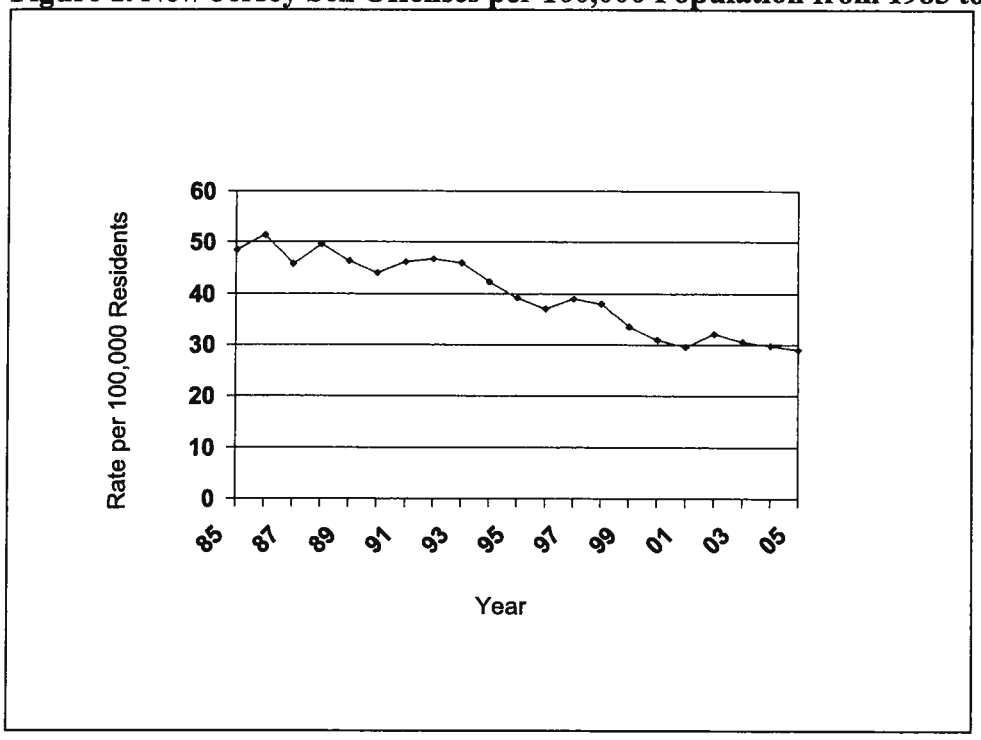
The results are organized into two major sections. The first section presents the trend analysis for both the state and for the individual counties. The second section contrasts the sex offense trend rates to trends in other offenses (i.e., drug and other non-sex/non-drug) over the same period of time.

### *County and Statewide Sex Offense Rates*

Figure 1 displays the rates of sex offenses for New Jersey as a whole from 1985 to 2005. The rates varied from 51 offenses in 1986 to a low of 29 offenses per 100,000 population in 2005. In general, there is a consistent downward trend.

Individual counties varied substantially both between counties and within counties over time. Table 1 presents summary statistics of each county and the state as a whole. Counties varied in population size from under 100,000 population in the smallest counties of Cape May, Salem, and Warren, to over three quarters of a million residents in the largest counties of Bergen and Essex. The population size of the county is not consistently related to the rate of sex offenses. For example, one of the largest counties, Essex County (Newark), has a relatively high rate of offenses (68), whereas the largest county, Bergen, has a relatively low rate (32). In contrast, the highest rate of offenses is in one of the smaller population counties, Cumberland. In the smallest counties, Cape May has a rate of 72 offenses per 100,000, whereas Warren has a rate of 36.

**Figure 1. New Jersey Sex Offenses per 100,000 Population from 1985 to 2005**




In 19 of the 21 counties, the year with the highest rate of sex offenses occurred before 1994; Passaic and Sussex Counties were the exceptions. In 19 of the 21 counties, the year with the lowest rate of sex offenses occurred after 1995; Morris and Passaic Counties were the exceptions in this case. The rank trend tests (Mann-Whitney U tests) revealed that (1) six counties had no statistically significant change point (Bergen, Hunterdon, Mercer, Morris, Passaic and Sussex), and (2) an additional six counties had a change point that preceded Megan's Law (Burlington, Camden, Monmouth, Salem, Somerset, and Union). This means that only nine counties have a change point after Megan's Law was passed with the years of change falling between 1994 and 1998. One final observation of county contrast should be noted. In several cases, counties had substantial drops in sex offenses after Megan's Law was enacted. However,

in the last several years these counties have had substantial increases in sex offense rates (analyses not shown). This is true, for example, of Ocean, Hudson, and Warren Counties.

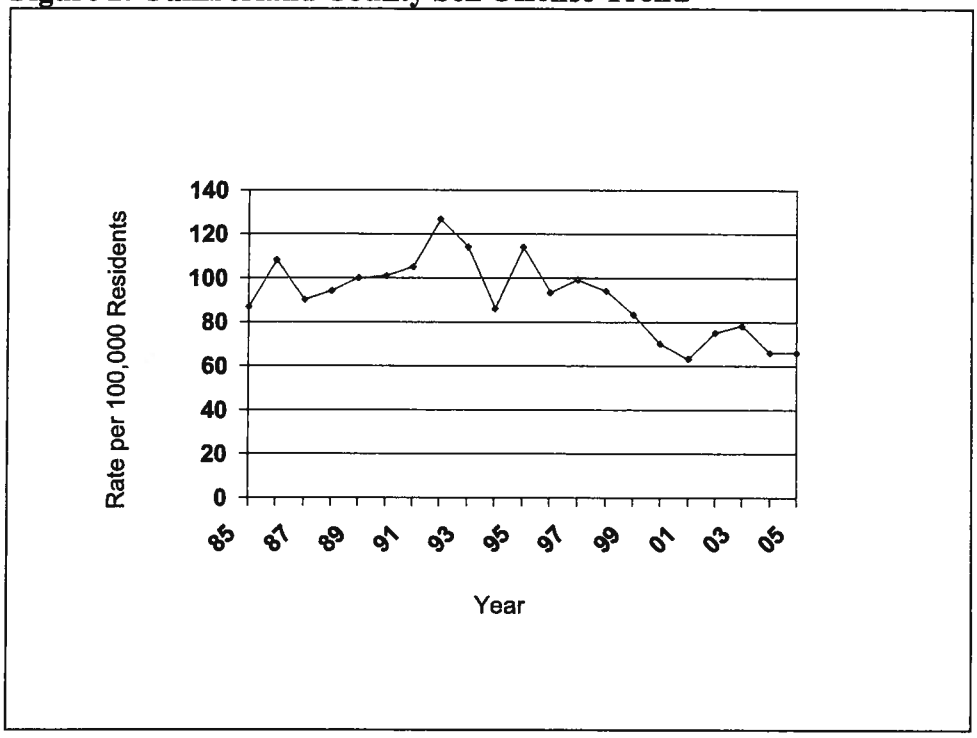
**Table 1. County and State Summary Statistics for Sex Offenses**

| County | Population in 1994 | Average Rate | Highest (Year) | Lowest (Year) | Change Year |
|---|---|---|---|---|---|
| Atlantic | 236,589 | 71.0 | 128 (1991) | 31 (2005) | 1994 |
| Bergen | 848,392 | 32.0 | 71 (1988) | 24 (2002) | n.s. |
| Burlington | 407,060 | 30.4 | 51 (1985) | 16 (2002) | 1993 ** |
| Camden | 508,479 | 42.9 | 97 (1986) | 29 (2005) | 1989 ** |
| Cape May | 99,561 | 72.2 | 111 (1992) | 38 (2003) | 1995 |
| Cumberland | 144,544 | 91.1 | 127 (1992) | 63 (2001) | 1998 |
| Essex | 784,460 | 67.6 | 95 (1990) | 35 (2004) | 1994 |
| Gloucester | 242,161 | 35.6 | 53 (1993) | 22 (2005) | 1997 |
| Hudson | 572,720 | 44.0 | 56 (1993) | 33 (2001) | 1998 |
| Hunterdon | 113,522 | 18.3 | 32 (1985) | 9 (2004) | n.s. |
| Mercer | 335,229 | 46.4 | 67 (1986) | 35 (2005) | n.s. |
| Middlesex | 701,090 | 27.1 | 38 (1985) | 19 (2004) | 1998 |
| Monmouth | 577,069 | 37.6 | 56 (1988) | 25 (2002) | 1992 ** |
| Morris | 439,533 | 23.1 | 33 (1986) | 15 (1993) | n.s. |
| Ocean | 461,152 | 24.7 | 38 (1993) | 15 (2001) | 1996 |
| Passaic | 478,164 | 50.8 | 82 (1997) | 36 (1988) | n.s. |
| Salem | 64,691 | 50.8 | 78 (1991) | 27 (2005) | 1992 ** |
| Somerset | 262,243 | 18.9 | 27 (1988) | 10 (1998) | 1991 ** |
| Sussex | 137,021 | 21.8 | 32 (1999) | 12 (2005) | n.s. |
| Union | 504,864 | 30.0 | 53 (1986) | 13 (2004) | 1993 ** |
| Warren | 95,762 | 36.4 | 63 (1987) | 14 (2001) | 1996 |
| NEW JERSEY | | 39.8 | 51 (1986) | 29 (2005) | 1994 |

** Change point precedes implementation point

Also, many counties demonstrated a predictable "jump" after Megan's Law was implemented. After a large initial drop in rates, there was a large rebound in sexual offenses (but not as high as pre-Megan's Law levels), followed by a continued decline. One example of this phenomenon is Cumberland County. As can be seen in Figure 2, the large dip at year 10 (1994) is followed by a spike the following year and then returns to a downward trend. This spike in sexual offenses most likely reflects increased surveillance and arrests, rather than increased offending.

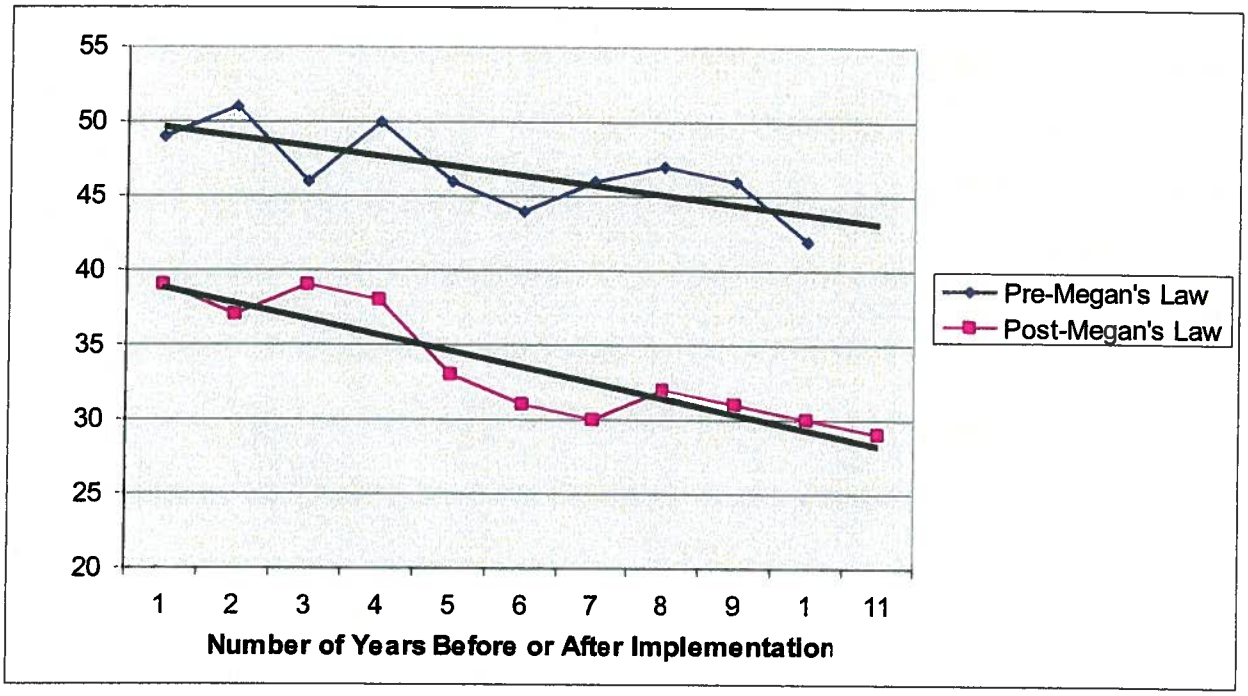
**Figure 2. Cumberland County Sex Offense Trend**




Although individual counties vary, the aggregate state statistics indicate a significant change in trend in the year 1994 (MW-U=110.0, $p<.001$). Figure 3 displays the rates before and after the implementation of Megan's Law. The upper line represents sex offenses for the years 1985-1994, and the lower line represents sex offenses for the years 1995-2005. Superimposed on the yearly rates is a linear trend line. There are two important differences between these trend lines. First, beginning in 1995 the rate of sex offenses never again approaches the pre-1994 levels (i.e., the intercept and average are different). Second, the slope is steeper in the post-Megan's law period. This is particularly notable, since sex offenses are low base rate crime. The fact that the decrease accelerates as the number of crimes decreases is unexpected. In fact, one

might expect that an effective intervention would exhibit diminishing returns over time. This is not the case in this instance.

Figure 3. Comparison of Sex Offense Rates per 100,000 Before and After Megan's Law



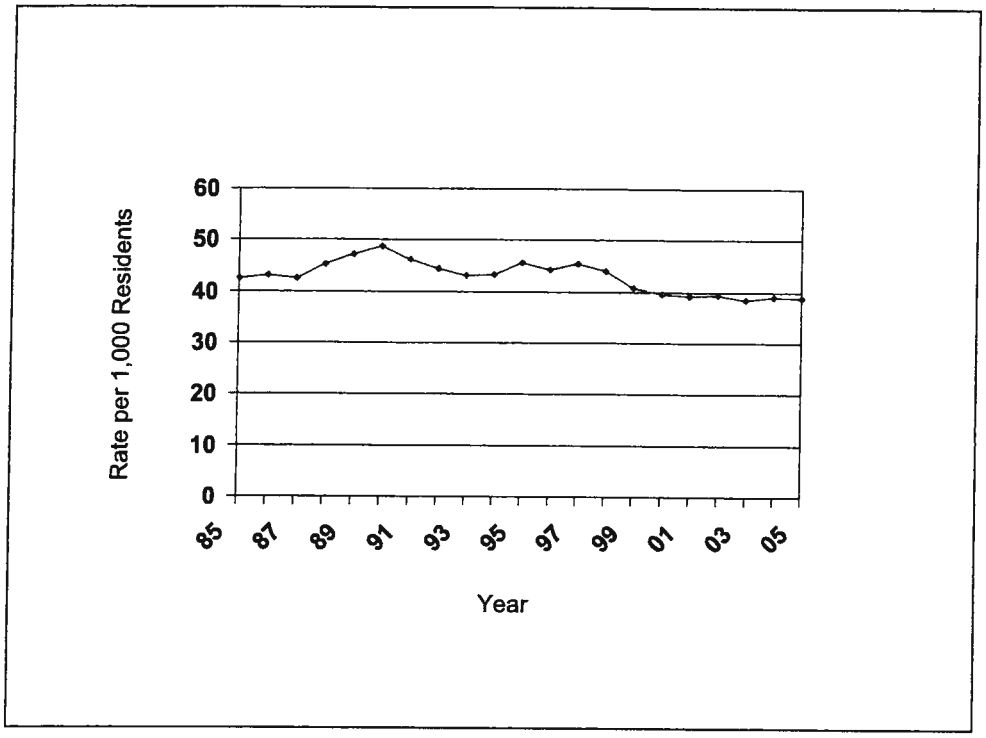

***Statewide Sex Offense Rates Compared to Non-sex/non-drug and Drug Offenses***

The aggressiveness with which arrest, prosecution and surveillance of specific crimes is pursued changes over time. After Megan Kanka's death at the hands of a convicted sex offender, public sentiment demanded an immediate and aggressive response by law enforcement, the courts and corrections. However, sex offenses are not the only crimes to receive this type of attention. The federal War on Drugs was experienced at the state and local level as well. Special task forces and interdiction programs resulted in vast numbers of arrests. At the same time, the crack epidemic hooked thousands of individuals. It is difficult to disentangle the effects of law enforcement and prosecution efforts from addiction trends. In the case of sex offenses, the trend in reduced rates of offending preceded Megan's Law. The challenge of this analysis is to

separate the effects of intervention from the existing rate reduction momentum. The first set of analyses addressed this point. The second concern is to control for historical effects. Drug offenses, like sex offenses, should reveal rate patterns consistent with intervention efforts. Other crimes should be more resistant to these specialized influences, but sensitive to larger social and political influences. The following analyses contrast the statewide sex offense trends with drug and other non-sex/non-drug offense trends.

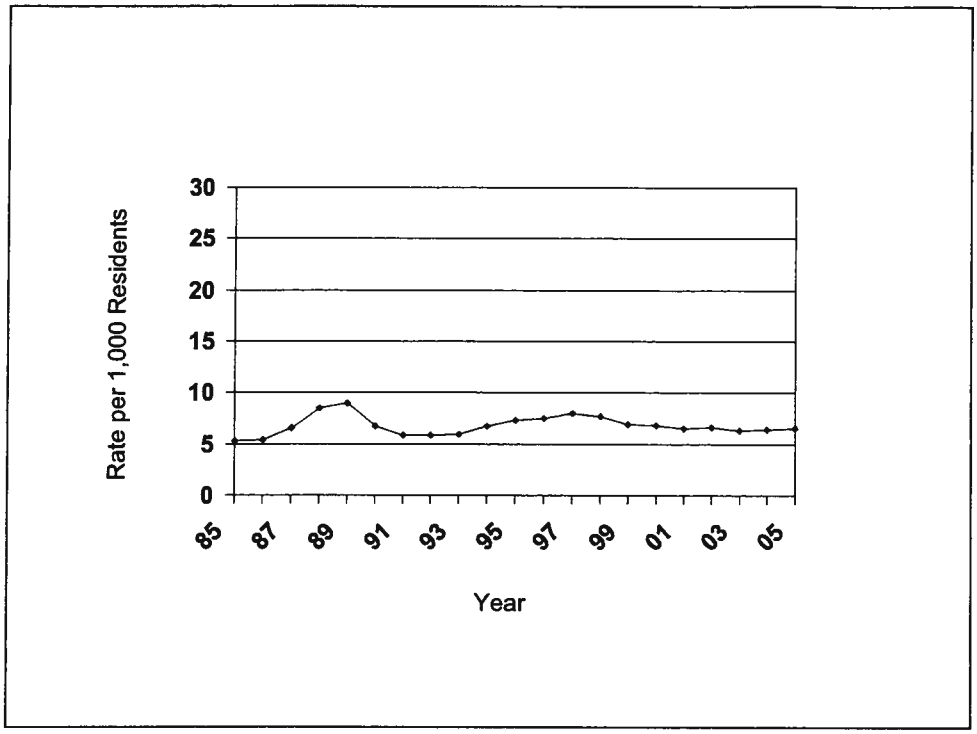
Figure 4 displays the rates of non-sex (non-drug) offenses. The average number of crimes per 1,000 population is 50.0 with the highest rate of offending at 56 in 1989 and the lowest at 45 in 2003. As illustrated, there is a consistent increase in crime rates in the late 1980's, followed by a five- year decline. Over the next several years the rates increased again, only to drop to their lowest levels in recent decades. For the last five years the rate has remained stable at about 45 crimes per 1,000. In these data, there is a significant change point in 1998 (MW-U=98.00; p=.005), indicating that the levels of crime prior to 1998 were significantly higher than those after 1998.

**Figure 4. New Jersey Non-sex /Non-drug Offenses per 1,000 Population from 1985 to 2005**




Unlike general crime, drug-related crimes showed very different rates by year. On average, there are 68 drug crimes per 10,000 population. This varied from a high of 89 in 1989 to a low of 52 in 1985. As can be seen in Figure 5, drug crimes spiked in 1989, then dropped precipitously. Although the rates increased again following 1993, this never again approached the 1989 rate. The most recent decline appears be to be stable at around 65 crimes per 10,000 and has not achieved the 1985-86 rates. There is no significant change point.

**Figure 5. New Jersey Drug Offenses per 1,000 Population from 1985 to 2005**




The general decline in sex offenses in NJ is similar to that of non-sex/non-drug crimes. However, the statewide change point for sex offenses occurred during the Megan's Law implementation year (i.e., 1994), whereas the change in trend for non-sex crimes occurred later, in 1998. The wide year-to-year fluctuations in drug crimes in fact may reflect specific policy and practice efforts, although those efforts were not sustained. In the case of sex offenses, the statewide change occurred when it was predicted to change and has maintained its impact over time.

## PHASE TWO: SEX OFFENDER OUTCOME STUDY

### Methodology

Phase Two of the National Institute of Justice grant used a sample of sex offenders released from New Jersey Department of Corrections facilities (either the Adult Diagnostic and Treatment Center [ADTC] or one of the general population facilities) before and after the

implementation of Megan's Law. Fifty sex offenders per year (25 from the ADTC and 25 from the general population) were randomly selected for the period covering 1990 through 2000, 11 years in total. This yielded a sample of 550 cases.

For each of these cases, extensive demographic, clinical, institutional and service use, criminal history, and crime offense characteristics information was collected. This provides an opportunity to contrast outcomes (i.e., recidivism, time to failure, and harm variables) of offenders arrested and released prior to the passing of Megan's Law with offenders arrested and released after the legislation passed.

This component analyzed pre-post group differences on three outcomes:

- Reduced recidivism- including re-arrests, re-convictions, and re-incarceration;
- Increased community tenure- including days to first arrest and days to first arrest for a sexual offense; and/or
- Reduced harm- including fewer sex offenses, less violent offenses, and fewer child victims.

The following sections present offender characteristics, bivariate differences in characteristics, and pre-post group outcomes.

## Results

### *Demographic Characteristics*

Table 2 displays the demographic characteristics of the sample. The sample is comprised only of males. Half of the sample is white with black and Hispanic offenders accounting for 35% and 15%, respectively. Only 0.2% of offenders classified themselves as "Other." At release, offenders were 34 years of age (sd=12.2). Nearly half (49%) were married

at one time and 66 percent had at least one child (including stepchildren). On average, each individual had 1.9 children (sd=2.1).

**Table 2. Demographic Characteristics of Sex Offenders (n=550)**

| Variable | % | Mean (sd) |
|---|---|---|
| Race | | |
| % white | 50.5 | |
| % black | 34.8 | |
| % hispanic | 14.6 | |
| % other | 0.2 | |
| Average Age | | 34.1 (12.2) |
| % Ever Married | 49.0 | |
| % With Children | 65.9 | |
| Average Number of Children | | 1.9 (2.1) |
| Education Level | | |
| % less than high school | 50.3 | |
| % high school diploma/GED | 33.6 | |
| % some college or more | 16.1 | |
| % Ever Employed | 62.8 | |
| Employment Type | | |
| % white collar/professional | 7.8 | |
| % blue collar/skilled trade | 75.4 | |
| % service industry | 13.2 | |
| % other | 3.6 | |

Half of the sample never completed high school. Specifically, 14 percent only achieved an eighth grade education, whereas 36 percent attended high school, but did not graduate. Twenty-five percent completed high school and 8 percent obtained a GED. Sixteen percent had some college education with 4 percent completing an Associate Degree or higher. Sixty-three percent had an employment history of a year or greater prior to committing the offense. Although most offenders reported some variety of employment history, the median years of employment was considerably low, at less than three years of past employment. Of those who had been employed, most had held unskilled or trade jobs (75%) or jobs in the service industry (13%). A notable 8 percent held white-collar or professional jobs. Offenders' prior employment income was unable to be determined for 29% of the sample. Of those offenders reporting employment

income, 25% reported an income of $20,000 or less, 5% reported an income of $21,000 to $30,000, 3% reported an income of $31,000 to $40,000, 1% reported an income of $41,000 to $50,000, and 0.5% reported an annual income of $50,000 or higher.

***Clinical Characteristics***

This section includes measures commonly associated with risk (e.g., history of abuse, familial criminal justice involvement), behavioral health problems, and past treatment experiences. Table 3 displays these measures obtained from an offender's folder.

**Table 3. Clinical Characteristics of Sex Offenders (n=550)**

| Variable | % |
|---|---|
| % With History of Child Abuse | 39.0 |
| % Raised in Two Parent Home Up to Age 13 | 65.7 |
| % With Family Member Involvement in CJ System | 8.6 |
| % With History of Mental Health Problems | 23.1 |
| % With History of Drug Use/Abuse | 44.8 |
| % With History of Alcohol Abuse | 47.1 |
| % Received Mental Health Treatment | 34.7 |
| % Received Mandated Sex Offender Treatment in Prison | 94.0 |
| % Received Other Treatment Services in Prison | 88.4 |

Most offenders were raised in either a traditional two-parent home (66%) or in a mother-only headed household (23%), and the majority of offenders did not report any history of child abuse (61%). Twenty-six percent, however, reported having experienced sexual abuse as a child. A large majority of offenders (91%) did not have any family members involved in the criminal justice system.

Only 23 percent of offenders reported some type of past mental health problem. These mental health issues included problems diagnosed in childhood (e.g., emotionally disturbed, developmental disorder) as well as more common diagnoses problems such as depression. In addition, a sizeable proportion of offenders had a drug or alcohol abuse history, with 45% reporting a prior drug abuse problem and 47% reporting a prior alcohol abuse problem.

Thirty-five percent reported having received mental health treatment in the past. Most offenders (94%) were reported as receiving some type of sex offender treatment while incarcerated. A majority of offenders (88%) also received treatment in addition to the standard, mandated treatment groups. Types of adjunct treatment offered to inmates included adult basic education classes, life/social skills groups (e.g. anger management), and drug and alcohol counseling.

***Offender Criminal History***

Offender criminal history includes information on prior arrests. These data are presented in Table 4. In general, the men incarcerated for a sex crime were more likely to have been engaged in previous non-sex crimes than in sex crimes per se. Sixty-five percent had a previous arrest for a non-sex crime. On average, they had been arrested 3.4 times (sd=5.77) and were arrested for the first time when they were 21.5 years old (sd=8.21). Only 27 percent had been previously arrested for a violent crime with an average of .5 prior arrests (sd=1.07). Even fewer (24%) had been arrested for a sex crime in the past, with an average number of .4 prior arrests (sd=1.02). On average, these offenders were 24.8 years old (sd=9.01) at the time of their first arrest for a sex crime. Only 6 percent had been arrested as a juvenile for a sex crime.

**Table 4. Offender Criminal History**

| Variable | % | Mean (sd) |
|---|---|---|
| % with Any Prior Arrests | 64.9 | |
| Average Number of Arrests | | 3.64 (5.77) |
| Average Age at First Arrest | | 21.5 (8.21) |
| % with Prior Arrests for a Violent Crime | 27.3 | |
| Average Number of Arrests for Violent Crime | | .50 (1.07) |
| % with Prior Arrests for a Sex Crime | 23.5 | |
| Average Number of Arrests for a Sex Crime | | .43 (1.02) |
| Average Age at First Arrest for a Sex Crime | | 24.8 (9.01) |
| % with a Juvenile Arrest for a Sex Crime | 5.7 | |

***Target Offense Characteristics***

Table 5 displays information regarding the sex crime(s) for which the men in the sample were serving sentences. Eighty percent of offenders were serving time for child molestation (incest=21% vs. non-incest=59%). Cases of rape and general exhibitionism accounted for 20% and 0.4% of all cases, respectively.

Sixty-two percent of offenders denied committing certain acts of the instant crime, or denied the sexual offense in its entirety. Most often, offenders in this latter group denied the more egregious acts of the offense (i.e. penetration) or instances of multiple acts. According to police reports, however, a majority of offenders (55%) engaged in multiple acts over a period of time, and in 26 percent of the cases the offender had multiple victims.

The 550 offenders in the sample victimized a total of 796 individuals. That is an average of 1.45 victims (sd=1.07) per offender for the current offense alone. However, this number is skewed. In 74 percent of the cases, there was only one victim identified. Of the cases involving two or more victims, the average number of victims was 2.7 (sd=1.49). Of the victims, 79 percent were female and 30 percent were male. These percentages include the cases where both males and females were victims (8%). The mean age of victim in the index offense was 12.3 years old (sd = 9.74). Ages of victims spanned from 1 year to 87 years old; 65 percent of the victims were 12 or younger, 24 percent were between 13 years old and 18, and the remaining 11 percent were 19 or older.

**Table 5. Characteristics of Target Crime**

| Variable | % | Mean (sd) |
|---|---|---|
| Offense Type | | |
| % child molestation | 79.5 | |
| % rape | 20.2 | |
| % exhibitionism/voyeurism | 0.4 | |
| % Offender Denied Some or All Aspects of Crime | 62.2 | |
| % Cases Occuring Over Multiple Dates | 55.2 | |

| | | |
|---|---|---|
| % Cases Involving Multiple Victims | 26.0 | |
| Victim Gender | | |
| % male | 21.1 | |
| % female | 70.5 | |
| % both | 8.4 | |
| Mean Age of Victim | | 12.3 (9.74) |
| Age Group of Victims | 1.4 (1.1) | |
| % 12 and under | 65.4 | |
| % 13 through 18 | 23.7 | |
| % 19 or older | 10.9 | |
| Relationship of Offender to Victim | | |
| % stranger | 16.1 | |
| % family | 48.2 | |
| % acquaintance | 33.6 | |
| % significant other | 2.2 | |
| % Lived With Victim | 42.6 | |
| % Crime Occurred in Victim or Offender Home | 77.2 | |
| % Cases Involving Weapon Use | 13.2 | |
| Type of Weapon | | |
| % gun | 27.3 | |
| % knife | 51.5 | |
| % rope/tape/bondage | 7.6 | |
| % other | 13.6 | |
| % Drugs Involved in Crime | 13.4 | |
| % Alcohol Involved in Crime | 26.0 | |

Most offenders had an established prior relationship with their victims, with only 16 percent of cases where the perpetrator was a stranger. In fact, nearly half (48%) of the perpetrators were family members, with the remaining crimes committed by either acquaintances of victims (34%) or victims' significant others (2%). Further, 43 percent of offenders lived with their victim(s) and in 77 percent of the cases the offense(s) were committed in the victim's or offender's home (including shared residence).

In 13 percent of the cases a weapon was used. Of those cases, the most common weapon used was a knife (52%), followed by a gun (27%), other weapon (14%) or the use of some form

of restraint (8%). In 13 percent of the cases drugs were involved and alcohol was involved in 26 percent of the offenses.

***Criminal Justice Factors***

On average, offenders were sentenced to nearly nine years of incarceration (104 months, sd= 63.8), with the most frequently imposed sentence being five years. The minimum and maximum imposed sentences for the sample were one year and 36 years, respectively. In actuality, offenders served approximately five years on average (56 months, sd=40.4), with time served ranging from three months to 21.5 years. Only 32 percent of offenders were paroled whereas 68 percent maxed out; leaving the prison with no post-incarceration supervision requirements other than those imposed by Megan's Law.

**Table 6. Criminal Justice Factors**

| Variable | % | Mean (sd) |
|---|---|---|
| Mean Length of Sentence (in months) | | 104.4 (63.8) |
| Mean Time Served (in months) | | 56.2 (40.4) |
| % Paroled | 32.4 | |

**Sample Equivalences**

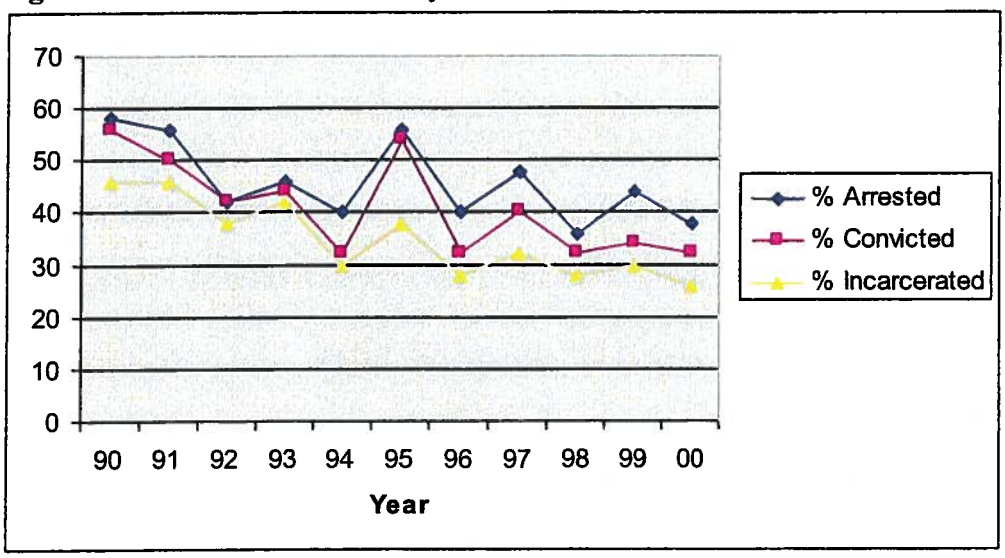
In studies that use random sampling it is assumed that the samples will be equivalent in all relevant factors. This is, however, an assumption, and statistical theory suggests that although rare, samples may be found to differ. In this case, it is known that samples differ temporally. The differences in cohorts may be reflected in institutional responses (e.g., changes in court procedures. In this case "Truth in Sentencing" legislation came into effect during this period), social or community behavior (e.g., increases or drops in specific drugs of choice or type of crime), or other historical sociopolitical changes. Bivariate analyses were conducted to confirm offender similarity in: demographics, risk factors, and prior criminality; all known to associated with the likelihood of recidivism.

No statistically significant differences were found in demographic characteristics. Among the risk factors, only receipt of other treatment services was significant (with the earlier cohort more likely to have received services [95% vs. 83%; $\chi^2$ = 14.6, df=1, p<.001]). In terms of criminal history, no variable was found to be significant except for the average number of prior sex offenses (with the earlier cohort averaging a higher number [.56, sd=1.16 vs. .32, sd=.87; F=7.21, df=1, 546, p=.007]). Among the target offense variables, only alcohol use was significant (with the earlier cohort more likely to have used alcohol during the commission of the crime [31% vs. 22%; $\chi^2$ = 6.09, df=1, p=.014]). Thus of the over fifty variables analyzed, only three were significantly different between groups. Again appealing to statistical theory, with multiple tests there is an increased likelihood of detecting significant relationships. No correction was made in these analyses to account for this threat. However, given the vast number of equivalencies, these groups are assumed equal for purposes of the outcome analyses.

**Offender Outcomes Pre- and Post-implementation of Megan's Law**

Before presenting pre-post contrasts that are controlled by time at risk, year-by-year graphs demonstrate several important points that must be kept in mind when interpreting the remainder of the analyses. The outcome measure of recidivism was collected through June 15, 2007. The remaining measures were adjusted to assure that all offenders had an equal time at risk, specifically 2,358 days or approximately six and a half years. Figure 6 presents the percent of offenders released in each year who generally recidivate within the follow-up period (i.e., 6 ½ years). In this case, this figure presents the percent of persons who are re-arrested, the percent of the sample re-convicted and the percent re-incarcerated. Clearly, these are three closely linked outcome measures (e.g., conviction cannot occur in the absence of a chargeable offense).

**Figure 6. General Recidivism by Year**




Overall, 46 percent of offenders were re-arrested (9 percent were re-arrested for a sex crime), 41 percent were convicted, and 35 percent were re-incarcerated. Although the figure shows substantial movement up and down over time, there are no significant differences by year (this is largely a power problem). Further, excluding the year 1995, all measures of recidivism are declining over time from highs in the 50 to 60 percent range in the 1990 release cohort to the 25 to 40 percent range in the 2000 release cohort. What is interesting about this figure, however, is the rates relative to each other within year. In most years, a stable percentage of persons who are arrested are convicted. In this sample, over the 11 years, 88 percent who are arrested are convicted. Of those convicted, 86 percent are incarcerated as a result. However, these rates vary from year to year. For example, of the 1993 release cohort 46 percent were re-arrested; of those, 96 percent were convicted; and of those convicted 96 percent went back to prison. In comparison, of the 1995 release cohort, 56 percent were re-arrested and nearly all were convicted (96%), but only 70 percent of those convicted were re-incarcerated. It is not clear from these data whether the year-to-year differences are a result of procedural and administrative changes or a reflection of a system response to public pressure.

### *Recidivism*

Table 7 presents the comparisons of the pre- and post-implementation groups on all outcome measures, including recidivism, community tenure and harm (sexual re-offending). In the first "recidivism" section, all measures (i.e., arrest, conviction and incarceration) are significant. In all three variables, the post-implementation group has a lower percentage of cases that have experienced the outcome. This is for general recidivism. Forty-one percent of the post-implementation group was re-arrested compared to 50 percent of the pre-implementation group ($\chi^2$= 3.94, 1 df, p=.047). Similarly, 34 percent of the post-implementation group was convicted compared to 46 percent of the pre-implementation group ($\chi^2$= 8.59, 1 df, p=.003). And 29 percent of the post-implementation group was re-incarcerated compared to 40 percent of the pre-implementation group ($\chi^2$= 7.53, 1 df, p=.006).

**Table 7. Offender Outcomes Pre and Post Megan's Law Implementation (n=550)**

| Variable | Pre | Post | Total | $X^2$/F (df) | sig. |
|---|---|---|---|---|---|
| **Recidivism** | | | | | |
| % re-arrested any crime | 49.7 | 41.2 | 45.8 | 3.94 (1) | .047 |
| % re-convicted at least once | 46.3 | 34.0 | 40.7 | 8.59 (1) | .003 |
| % re-incarcerated at least once | 40.0 | 28.8 | 34.9 | 7.53 (1) | .006 |
| **Community Tenure** | | | | | |
| Days to arrest any crime (sd) | 772.2(636.9) | 726.0(616.5) | 753.3(627.8) | .329(1,250) | n.s. |
| Days to arrest sex crime (sd) | 813.7(690.5) | 765.3(706.0) | 794.9(689.6) | .056(1,47) | n.s. |
| **Harm** | | | | | |
| % re-arrested sex crime | 10.0 | 7.6 | 8.9 | .97 (1) | n.s. |
| Sex crime type (n=48) | | | | 1.70 (2) | n.s. |
| % child molestation | 54.5 | 66.7 | 59.5 | | |
| % rape | 13.6 | 20.0 | 16.2 | | |
| % other (voyeurism, exhibitionism) | 31.8 | 13.3 | 24.3 | | |
| % violent | 31.9 | 20.5 | 26.7 | 9.01 (1) | .003 |

### *Community Tenure*

Time to failure is an important outcome measure. Situations may exist where equal percentages of experimental and comparison groups demonstrate an outcome, in this case, re-arrest, but the average length of time to the arrest differs. Even in the case where equal percentages of pre- and post-implementation subjects are re-arrested, more days in the

community without committing a crime[2] reflects improved outcomes in community and personal harm, as well as cost savings.

The average time to an arrest for any type of crime was 753 days (sd=628) or about two years, one month (see Table 6). There was no significant difference by implementation cohort. The average time to an arrest for a sex offense was 795 days (sd=690) or about two years, two months. There was no significant difference by implementation cohort for this variable.

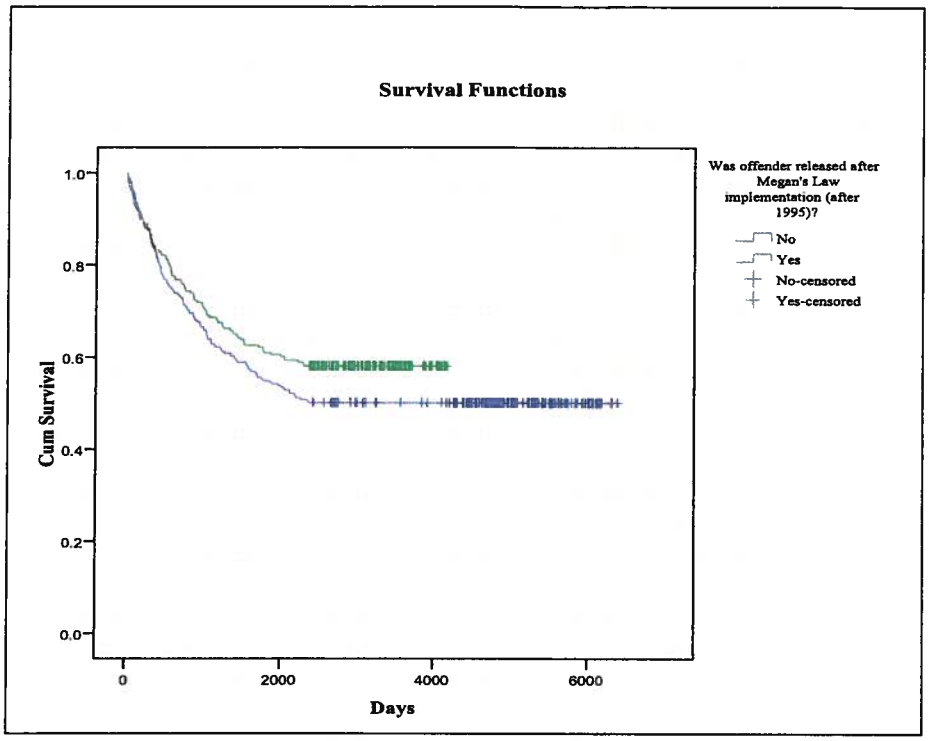
A survival analysis was also conducted on these data to determine whether the rate of failure by time at risk varies significantly by implementation cohort. Figure 7 displays the survival curves for the two groups. Cases that experienced an arrest are designated by their inclusion in the continuous curve (i.e., continuous line), cases that were not arrested are censored and are represented as pluses. The strength of this analysis is the inclusion of censored cases. They are included with the time value computed as the time from release until the last day of data collection (i.e., June 15, 2007).

The curves reflect several facts: (1) all cases are censored if their time at risk exceeds 2358 days regardless of whether they were arrested or not, (2) 60 percent of post-implementation cases compared to 50 percent of pre-implementation cases survive (i.e., have not been arrested)[3], and therefore visually demonstrating the cohort difference in overall re-offending, and (3) the curves, while diverging a small amount, are proportionally similar across time at risk, thus reflecting no significant difference in the failure rate (confirmed by statistical tests, including the log-rank test).

**Figure 7. Survival (days to re-arrest) of Pre and Post Implementation Groups**

[2] Assuming that supervision and surveillance practices are equivalent and that the individual does not indeed commit any crimes.

[3] These are the same percentages in reverse (100%-%arrested) as those displayed in Table 1



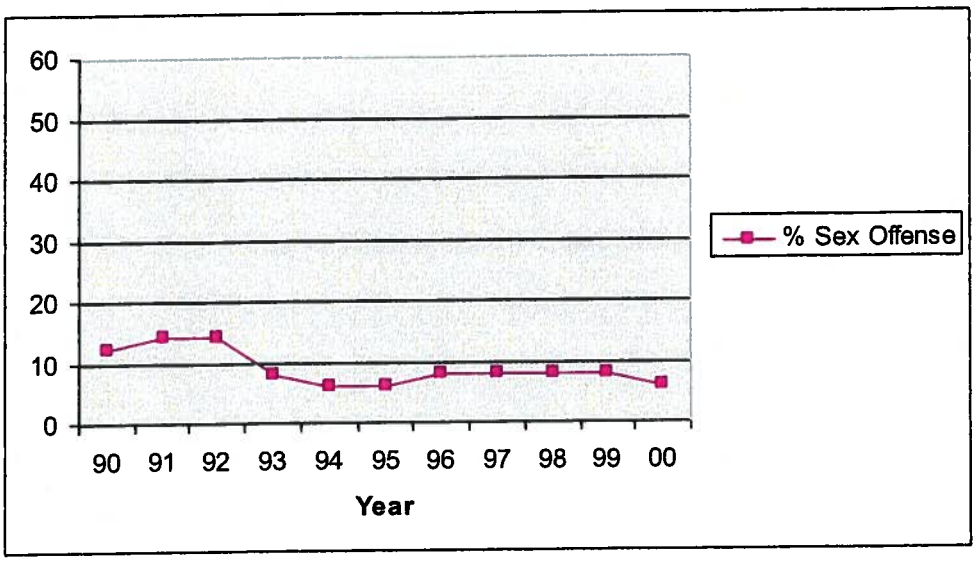

***Reduced Harm by Deterring Sexual Re-offending***

Re-arrests for sexual offenses do not significantly differ year to year (see Figure 8). Holding time at risk constant, 9 percent of the sample has been re-arrested for a sex crime, representing about 19 percent of the arrest charges. This varies from a high of 14 percent in 1991 and 1992 to a low of 6 percent in 1994, 1995, and 2000.

Pre- and post-implementation groups do not differ in the percent of persons re-arrested for a sex crime (10% vs. 7.6%). Of the 48[4] cases represented in the sexual re-offense type analysis, 60 percent were charged with child molestation or incest, 16 percent with rape and 24 percent with another type of sex offense, including voyeurism and exhibitionism. The pre- and post-implementation groups also did not differ significantly on sex offense type.

**Figure 8. Re-arrest for Sex Offense by Year**

[4] Allowing time at risk to include the full period of time from release, only 62 individuals were re-arrested on a sex charge: 13.2% of the pre-implementation group with between 4,565 and 6,386 days at risk and 9.7% of the post-implementation group with between 2,374 and 4,561 days at risk.




As a side note, the percentage of violent crimes, excluding sex crimes, was also investigated. Overall, 28 percent of the sample was re-arrested for at least one violent crime. Importantly, only 21 percent of persons released after Megan's Law was implemented were re-arrested for a violent crime compared to 32 percent of the pre-implementation cohort.

## PHASE THREE: COST STUDY

### Methodology

The final stage of this research grant proved to be the most challenging, as delineating costs associated with community registration and notification were difficult to disentangle from other state and county level spending. The research team mailed a cost assessment questionnaire to the Megan's Law Units housed within each of the 21 county prosecutor's office. Megan's Law Units are responsible for the enforcement and administration of community notification and registration statutes in New Jersey (i.e., Megan's Law). Examples of functions performed by Megan's Law Unit personnel include risk assessment (i.e., tier classification), door to door/community notifications, trainings (e.g., law enforcement, day care center employees), prosecution/litigation, internet registry maintenance, etc.

Prior to mailing the cost assessment questionnaires, the research team met with Assistant Prosecutors in order to review questions contained in the survey and to address any questions prosecutors may have had in completing the survey. Survey questions were subsumed under two general categories: start up costs and ongoing yearly implementation costs.

Specifically, startup costs include those initial costs associated with the establishment of each county's Megan's Law Unit. Three variables were included under startup costs: establishment of the internet sex offender registry, equipment costs, and other/miscellaneous costs (e.g. computer software). Ongoing costs consist of expenses such as staff salaries, internet registry maintenance, equipment maintenance/supplies, and other/miscellaneous expenses (e.g. mailings, printings, software updates, etc.). Survey questions concerning on-going expenses pertained to costs accumulated during the calendar year ending 2006.

In addition, a section concerning percentage of time allotted to job tasks (i.e. itemized according to staff title) was included and was to be completed for all staff working within each county's Megan's Law unit. For example, if an investigator was included under personnel, a percentage breakdown of time allotted to specific job functions such as risk assessment, door to door notifications, training, etc. was required.

Of the 21 counties that were surveyed, 15 surveys were completed and received by the research unit, for a total response rate of 71.4 percent. Upon receipt, researchers scanned survey responses for possible misreading/interpretation issues related to specific survey items. For additional clarification, researchers called county prosecutor offices to confirm questionable survey item responses and made any changes accordingly. After survey responses were finalized, an Excel database of cost assessment variables was created for analysis.

Along with the cost assessment survey, prior New Jersey state budgets were reviewed for costs associated with the incarceration, rehabilitation, and tracking of sex offenders. Specifically, the budgets were searched for any allocation to Megan's Law. Moreover, original grant documentation and archived folders were also reviewed for costs not included or found in the other sources. Sources were challenging to locate, as was the origin of much of the funding.

**Results**

The results that follow include statistics based on the 15 counties that responded to the research unit's Megan's Law Cost Assessment Survey. For the 15 responding counties, the initial aggregate implementation cost of Megan's Law totaled $555,565. Of this total startup cost, establishment of the internet sex offender registry accounted for $186,190, an average of $31,032 (sd=$24,140) per county, equipment accounted for $232,407 ($19,367 average per county, sd=$14,212), and other/miscellaneous costs accounted for $136,968 ($12,452 average per county, sd= $17,702). In addition, total aggregate expenses for all 15 counties attributable to the ongoing implementation of Megan's Law were estimated to be $3,973,932 per annum (i.e., according to the fifteen participating counties). Of total per annum costs, staffing costs accounts for $3,605,972 ($257,569 average per county, sd= $160,180), internet sex offender registry maintenance accounts for $146,300 ($20,900 average per county, sd=$20,178), equipment/supplies accounts for $130,483 ($10,037 average per county, sd= $8,196), and other/miscellaneous expenses accounts for $91,177 ($6,513 average per county, sd= $6,002).

Additional information gathered from the prosecutor's surveys includes counts of staff within each county's Megan's Law Unit, number of cases handled per year, and number of door to door notifications per year. According to completed surveys, the number of employees dedicated to Megan's Law Unit operations totals 78 (5.2 average per county, sd= 3.2), and an

estimated 5,873 Megan's Law specific cases were processed (391.5 average per county, sd= 303.4). Moreover, counties reported that law enforcement officers performed a total of 31 door–to-door notification events (3.9 average per county, sd= 2.7) throughout the year (e.g. 1 event equals 300 households) for tier three sex offenders.

A question concerning ongoing costs for the calendar year ending 2006 was also included in the survey to measure yearly cost increases/decreases. The cost for Megan's Law implementation during calendar year 2006 was estimated to be $1,557,978, whereas implementation costs during calendar year 2007 totaled $3,973,932 for responding counties[5]. This change represents a 155% increase in ongoing expenses from calendar year 2006 to calendar year 2007. These increases were obtained from raw figures provided by the Megan's Law Units and did not reflect specific costs. However, with the inception of the Global Positioning Satellites used for Tier 3 sex offenders, it can be surmised that a portion of the increases can be attributed to increased surveillance. Finally, research of prior state budgets documented a $200,000 expenditure on Megan's Law DNA Testing for fiscal years since 2000. There are no other distinguishable appropriations. Most costs are combined with salaries or another type of operating expenses.

## PROJECT SUMMARY

[5] As noted, fifteen out of a possible twenty one counties in New Jersey responded to the cost assessment survey, which translates to an approximate response rate of 71.4%. In order to provide a more accurate assessment of initial and on going costs statewide, said costs were interpolated by adding 28.6% (i.e. 100% - 71.4%) to the implementation and ongoing grand totals of the fifteen responding counties. . In effect, using this general interpolation method, implementation costs were estimated to be $714,457 and ongoing costs were estimated to be $5,110,477 statewide. Again, because these figures are interpolated, these costs do not take varying county demographics into account and should be interpreted with this caveat.

The three phases of this study were designed to test the effectiveness and cost of Megan's Law using multiple methods and strategies. In none of the analyses was Megan's Law definitively found to be effective. Since sex crime rates have been down prior to Megan's Law and pre and post samples do not indicate statistically lower rates of sexual offending, the high costs associated with Megan's Law are called into question.

**Summary of Results**

As a preliminary step in assessing the effect of community registration and notification laws on sexual arrest rates in New Jersey, the goal of the trend study was to explore crime trends and to identify possible changes over a 21-year period. Specifically, the main research areas concerned the patterns of sexual offense rates both prior and subsequent to the implementation of Megan's Law, as well as comparisons in crime rates between sexual, drug, and non-sex/non-drug based offenses during the same time period. The results presented in this report support findings by other researchers exploring relevant topics. Most notably, Finkelhor and Jones (2004) found that there has been a consistent downward trend in child sexual abuses cases since the early 1990s.

This trend analysis did indeed find a significant change in the statewide decreasing sex offense rate in the year Megan's Law was implemented, which may lead some readers to believe that the legislation is solely responsible for the decline. Because sex offense rates began to decline well before the passage of Megan's Law, the legislation itself cannot be the cause of the drop in general. It may, in fact, be the case that continuing reductions in sex offending in New Jersey, as well as across the nation, are a reflection of greater societal changes. Having said this, it is nevertheless hard to explain the steeper decline in rates after the implementation of Megan's Law. Given that sex offenses are low base rate events, the finding that these rates continue to

decline at an accelerated rate after 1994 suggests that something other than a natural decline may be responsible. Although the initial decline cannot be attributed to Megan's Law, the continued decline may, in fact, be related in some way to registration and notification activities. However, there may well be additional factors causing this steeper rate of decline after 1994, perhaps some attributable to other public policies. For example, in 1998, New Jersey began civilly committing those sex offenders found to present the highest risk to the community, termed sexually violent predators. Assuming the accuracy of the risk assessment that underlies the civil commitment of these sexually violent predators, then those at highest risk to reoffend have been removed from the community, thereby potentially lowering the sex offense rate. Although, the number of civilly committed sexual predators only includes approximately 350 sex offenders.

Moreover, this statewide finding of a declining sex offense rate should be taken with considerable caution. The variation in the pre-post-implementation rate trends at the county level suggests that the statewide effect may be an artifact of the aggregation process. Although many counties (9 of 21) follow the state trend, many others show no differences in rates over time or have experienced reductions followed by increases to near pre-Megan's Law levels. Even so, with only two exceptions, the rates of sex offending were highest prior to 1994 and lowest after 1995, with the most recent years having the lowest rates. Differences in population, socio-political status, policing and prosecutorial resources may be related to differences in the effectiveness in notification and surveillance activities in specific counties.

Although impossible to distinguish the nature of the effects, the reductions of sex offenses is related to some historical process: either (1) registry/notification, surveillance and/or aggressive prosecution under a more mature Megan's Law is responsible for the continued

reductions or (2) general public awareness, publicity, and/or exclusion and intolerance feed the continued decline. Most likely, it is a combination of these factors.

In the offender release sample, there is a consistent downward trend in re-arrests, reconvictions and re-incarcerations over time similar to that observed in the trend study, except in 1995, when all measures spiked to a high for that period. This resulted in significant differences between cohorts (i.e., those released prior to and after Megan's Law was implemented). Similarly, re-arrests for violent crime (whether sexual or not) also declined steadily over the same period resulting in a significant difference between cohorts (i.e., those released prior to and after Megan's Law was implemented). However, because these trends began before Megan's Law was passed, this decline cannot be attributed solely to Megan's Law activities.

In all other pre-post measures, including other measures of recidivism, community tenure and harm reduction (decreased sexual offending), no significant differences between cohorts were found. As such, Megan's Law does not illustrate effectiveness in:

- increasing community tenure (the time spent in the community prior to re-arrest);
- reducing sexual re-offenses;
- changing the type of sexual re-offense or first time sexual offense (for example, from hands-on to hands-off offenses); or
- reducing the number of victims involved in sexual offenses.

Costs associated with the initial implementation of Megan's Law, as well as ongoing expenditures, continue to grow over time. Start up costs totaled $555,565 in 1994 and now current costs (in 2007) total approximately 3.9 million dollars. Given the lack of demonstrated effect of Megan's Law, the researchers are hard-pressed to determine that the escalating costs are justifiable.

**Limitations**

Conducting a study of this type with sensitive sexual arrest data introduces a number of limitations. The most noted problem plaguing sexual offense research, the low base rate of reported sexual offenses, is tied to the under-representation of official data. Because sexual offenses are under-reported, most measures of recidivism under-represent the true offending rates (American Psychiatric Association [APA], 1999; Belknap, 2000; Furby et al., 1989; Hall, 1995; Hanson & Bussiere, 1998). It has been suggested that the present statistics on sexual abuse represent approximately one-third of the number of actual victimizations, leaving researchers and practitioners concerned about the "dark figure" of sexual abuse (APA, 1999; Belknap, 2000; Chesney- Lind, 1997). Legal definitions, fear and shame, and a desire for privacy are the main contributors to the unwillingness of many victims to report their abuse. Conversely, it has been noted that some types of sexual abuse may be over-represented to the police, such as stranger rapes (Belknap, 2000). For example, victims of stranger rape, as opposed to incest victims, may be more inclined to report their sexual victimization because their perpetrator is unknown. This disparity may lead many to believe that stranger victimizations occur more frequently than other types of sexual victimizations because the reports may appear disproportionately higher (Zgoba & Simon, 2004). Although most individuals know that acquaintance or familial crimes are more frequent, these factors may make it difficult to achieve a clear picture of sexual offense rates (Belknap, 2000; Chesney- Lind, 1997). Given this low base rate of reporting, it is notable that sex offenses decrease rapidly in the post-Megan's law period; the fact that the decrease accelerates as the number of crimes decreases is unexpected.

Another issue that has been difficult to fully address in the format of this study is whether the noted decreases in the post-Megan's law period can be attributed to specific deterrence or a more general deterrent effect. The intent of Megan's law was to reduce repeat arrests among

known sex offenders. That is, Megan's law was designed as a specific deterrent. However, the idea of notification and increased surveillance may have a general deterrent effect. Further, increased attention and public contempt of sex offenses and offenders may also contribute to general deterrence. This study illustrated downward trends in sexual arrest rates, but cannot differentiate whether the reduction is due to decreases in new first-time sex offenses (general deterrence) or to decreases in sexual re-offenses (specific deterrence).

One of the largest challenges, and a subsequent limitation, associated with this grant was obtaining the financial costs regarding Megan's Law. County Prosecutor Offices, as well as the offices dealing with Treasury and Budget, had the same difficulties the researchers experienced when attempting to isolate and identify the costs listed in the State of New Jersey Budgets. Furthermore, initial start-up costs were sometimes funded through grants that providing few specifics regarding disbursement patterns. In an effort to provide close estimates, the researchers developed proxy measures that should be read with some caution.

**Conclusion**

Despite wide community support for these laws, there is little evidence to date, including this study, to support a claim that Megan's Law is effective in reducing either new first-time sex offenses or sexual re-offenses. Continuing research should focus on matching samples of sex offenders before and after the implementation of Megan's Law and also examining levels of supervision associated with Megan's Law. Further research will be conducted utilizing the data accumulated here, specifically exploring low base rate offending and potential predictors of sexual recidivism. Should future studies establish that Megan's Law has no demonstrable effect on the rates of sexual offending, policy makers and legislative leaders should investigate other

options for lowering sex offense rates, such as mandated treatment of all sex offenders, potential use of polygraph testing and intensive probation and parole supervision.

**References**

American Psychiatric Association. (1999). *Dangerous sexual offenders: A task force report of the American Psychiatric Association.* Washington, DC.

Barnoski, R. (2006). Sex Offender Sentencing in Washington State: Sex Offender Risk Level Classification Tool and Recidivism. Washington State Institute for Public Policy, (WSIPP Publication No. 06-01-1204). Retrieved February 3, 2007 from http://www.wsipp.wa.gov/pub.asp?docid=06-01-1207.

Beck, V. S. & Travis, L. F. III. (2002). Sex offender notification and protective behavior. Paper presented at the 54th annual meeting of the American Society of Criminology, Boston, MA.

Beck, V. S., Clingermayer, J., Ramsey, R. J., & Travis, L. F. III. (2004). Community responses to sex offenders. *Journal of Psychiatry & Law*, 32, 141-168.

Belknap, J. (2000). *Invisible women: Gender, crime and justice.* Stamford, CT: Wadsworth Publishing.

Brooks, A. (1996). Megan's Law: Constitutionality and Policy. *Criminal Justice Ethics*, 15 (1), 56-66.

Chesney-Lind, M. (1997). *The Female offender: Girls, women and crime.* Thousand Oaks, CA: Sage Publications.

Corrigan, R. (2006). Making Meaning of Megan's Law. *Law & Social Inquiry,* 31(2), 267-312.

Finkelhor, D., & Jones, L. M. (2004). *Explanations for the decline in child sexual abuse cases.* Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention.

Furby, L., Weinrott, M. & Blackshaw, L. (1989). Sexual offender recidivism: A review. *Psychological Bulletin*, 105, 3-30.

Hall, G. (1995). Sexual offender recidivism revisited: A meta-analysis of recent treatment studies. *Journal of Consulting and Clinical Psychology*, 63 (5), 802-809.

Hanson, R. K. & Bussiere, M.T. (1998). Predicting Relapse: A Meta-Analysis of Sexual Offender Recidivism Studies. *Journal of Consulting and Clinical Psychology,* 66(2), 348-362.

Langan, P.A. & Levin, D.J. (2002). Recidivism of Prisoners Released in 1994. U.S. Department of Justice, Bureau of Justice Statistics (NCJ 193427. Washington, DC.

Matson, S. & Lieb, R. (1997, October). Megan's Law: A review of state and federal legislation. *Washington State Institute for Public Policy (Document No. 97-10-1101).* Olympia, WA.

Pettitt, AN. (1979). A non-parametric approach to the change-point problem. *Applied Statistics 28*:126-35.

Pawson, R. D. (2002). Does Megan's Law work?: A theory-driven systematic review. Centre for Evidence Based Policy and Practice, London, UK: University of London.

Presser, L. & Gunnison, E. (1999). Strange Bedfellows: Is Sex Offender Notification a Form of Community Justice? *Crime & Delinquency,* 45(3), 299-315.

Pallone, N.J., Hennessy, J.J. & Voelbel, G.T. (1998). Identifying Pedophiles "Eligible" for Community Notification Under Megan's Law: A Multivariate Model for Actuarially Anchored Decisions. *Journal of Offender Rehabilitation,* 28(1/2), 41-60.

Rudin, J. (1996). Megan's law: Can it stop sexual predators, and at what cost to constitutionality? *Criminal Justice,* 11(3), 2-63.

Schram, D. D., and Milloy, C. D. (1995). Community Notification: A Study of Offender Characteristics and Recidivism. Washington State Institute for Public Policy. Seattle, Washington: Urban Policy Research.

Tewksbury, R. (2005). Collateral Consequences of Sex Offender Registration. *Journal of Contemporary Criminal Justice,* 21(1), 67-81.

Tewksbury, R. & Lees, M. (2006). Perceptions of Sex Offender Registration: Collateral Consequences and Community Experiences. *Sociological Spectrum*, 26(3), 309-334.

Witt, P.H. & Barone, N.M. (2004). Assessing sex offender risk: New Jersey's methods. *Federal Sentencing Reporter*, *16*, 170-175.

Zevitz, R. G. & Farkas, M. A. (2000). Sex offender community notification: Assessing the impact in Wisconsin. U. S. Department of Justice, National Institute of Justice, Research in Brief (NCJ 17992).

Zgoba, K. & Simon, L.M.J. (2005). Recidivism Rates of Sex Offenders Up to Seven Years Later: Does Treatment Matter? *Criminal Justice Review*, 30(2), 155-173.

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# Sex Offender Registration and Notification: Limited Effects in New Jersey

*by Kristen M. Zgoba, Ph.D., and Karen Bachar*

## Overview

In 1994, 7-year-old Megan Kanka was raped and murdered by Jesse Timmendequas, a sex offender who had been released after serving a maximum sentence. In response to this event and other sex crimes, community members successfully lobbied for the enactment of a law that requires sex offender registration and notification to the public that a sex offender is living and working in the community.

Since the mid-1990s, all 50 states and the District of Columbia have passed similar legislation, collectively referred to as "Megan's Law." Underlying these laws is the belief that notifying the public of the presence of sex offenders in their community allows citizens to take protective measures against sex offenders who live nearby.

Researchers for the first time have conducted an independent scientific assessment of the effects of the law in New Jersey.[1] They analyzed data from before and after the law was enacted. The study's primary goal was to examine the impact of the law on the state as a whole and each county within the state. (See "Limitations of the Study" for what researchers were unable to examine.)

Researchers studying the impact of registration and notification laws in other states have found similar results.[2]

## Findings

- Sex offense rates in New Jersey have been on a consistent downward trend since 1985. During this period, rearrests for violent crime (whether sex crimes or not) also decreased. When the researchers examined the decline in each county and then examined the state as a whole, the resulting statistical analysis showed that the greatest rate of decline for sex offending occurred prior to 1994 and the least rate of decline occurred after 1995. Hence the data show that the greatest rate of decline in sex offending occurred prior to the passage and implementation of Megan's Law.

## Megan's Law in New Jersey

In New Jersey, sex offenders are required to register with the local police department within a specified time after release from prison. Registration and notification are separate steps in New Jersey, but are often referred to as one process as they are in other states. Notification to the public and past victims is determined by the level of risk the offender poses. Placement in a tier is determined by a risk assessment instrument the state of New Jersey uses to estimate an offender's likelihood of committing another offense.

Offenders who represent the lowest risk are placed in tier one. They are only required to notify law enforcement officials and the victims after release. Tier two classification represents moderate risk of reoffense and requires notification of organizations, educational institutions, day care centers and summer camps. Tier three offenders are predicted to present the greatest risk to reoffend. Placement in this category generates the most legal resistance because it calls for the broadest level of notification. Under the law, a sizable portion of the community is notified through posters, pamphlets and, more recently, the Internet.

- Megan's Law did not reduce the number of rearrests for sex offenses, nor did it have any demonstrable effect on the time between when sex offenders were released from prison and the time they were rearrested for any new offense, such as a drug, theft or sex offense.
- The majority of sexual offenders sentenced in New Jersey are convicted of incest and child molestation. In more than half the cases, the victim and offender know each other. Megan's Law did not have an effect on this pattern: The bulk of offenses and reoffenses committed both before and after the law remained child molestation and incest.
- Megan's Law had no demonstrable effect on the number of victims involved in sexual offenses, i.e., the data show no reduction in the numbers of victims.
- Sexual offenders convicted after Megan's Law was passed received shorter sentences than those convicted before the law; sentences before Megan's Law were nearly twice as long as those afterwards. However, fewer sexual offenders have been paroled since the law was passed, due largely to changes in sentencing guidelines. As a result, offenders convicted before and after Megan's Law serve approximately the same amount of time.
- Estimates of the cost show that New Jersey spent $555,565 to implement the law in 1995. In 2006, the estimated cost of implementing the law was approximately $3.9 million, based on data received from 15 of New Jersey's 21 counties.

## About the New Jersey Study

### Phase One: Identify Trends

In phase one of the study, researchers used a pre-post research design to determine trends in the rates of sexually based offenses reported by law enforcement agencies in the 21 counties of New Jersey — 10 years before to 10 years after the implementation of Megan's Law. To compare trends, data on violent, nonsexual crime and drug offenses were also collected and analyzed for the same period. All data came from the FBI's *Uniform Crime Reports.* Prevalence rates for three types of offenses — sexually based offenses, nonsexually based offenses and drug offenses — were established using population estimates from the Department of Labor's Bureau of Labor Statistics guidelines and cross-referenced with the *Sourcebook of Criminal Justice Statistics,* a yearly publication of the federal government.

### Limitations of the Study

The greatest challenge in conducting research about sexual offenses is the low rate of reported sexual offenses. Because these crimes tend to be underreported, official sources of data and most measures of recidivism may underrepresent true offending rates.

Another challenge in this study was determining whether Megan's Law served as a deterrent. Although the study found long-term downward trends in sexual arrest rates, it was not possible to determine whether the results were due to decreases in new, first-time sex offenses (general deterrence) or to decreases in sexual reoffenses (specific deterrence).

The study did not examine the extent to which sex offender registration and community notification increased surveillance and prepared the public to take preventive action.

### Phase Two: Compare "Before" and "After"

In phase two, researchers used a sample of 550 sex offenders arrested and released from New Jersey Department of Correction facilities before and after the implementation of Megan's Law to examine the differences between the two groups. Pre-post comparisons looked for differences in general reoffense arrest rates, sexual reoffense rates, harm (violent offense rates, percentage of child victims) and community tenure.

### Phase Three: Estimate Costs

The final phase of the project aimed to assess costs associated with the implementation and current operation of community registration and notification activities in New Jersey. Cost assessment questionnaires were mailed to the Megan's Law Units in the prosecutor's offices for the 21 counties. Survey questions were classified under two general categories: start-up costs (equipment, Internet sex offender registry) and ongoing yearly implementation costs for the 2006 calendar year (staff salaries, Internet registry maintenance, equipment maintenance/supplies and office supplies). Fifteen of 21 counties completed the survey. Along with the cost assessment survey, prior New Jersey state budgets were reviewed for costs associated with the incarceration, rehabilitation and tracking of sex offenders.

## Demographics of the New Jersey Study

Convicted offenders and their offense types in this study were similar before and after Megan's Law was passed. Compared to the average criminal, sex offenders are generally older, married or have been married, employed, better educated, and have children or stepchildren. In this study, 79 percent of the offenses were child molestations and 20 percent were rapes.

In 48 percent of the cases, the sex offender was a member of the victim's family. In 42 percent of the cases, the perpetrator lived with the victim, and in 77 percent of the cases, the crime occurred in the victim's or offender's home.

## Notes

1. The New Jersey study report *Megan's Law: Assessing the Practical and Monetary Efficacy* is available at: http://www.ncjrs.gov/pdffiles1/nij/grants/225370.pdf.

2. Other studies of the impact of laws in states with similar registration and notification statutes include:


- Walker, Jeffery T., Sean Maddan, Bob E. Vásquez, Amy C. VanHouten, and Gwen Ervin-McLarty, *The Influence of Sex Offender Registration and Notification Laws in the United States,* Arkansas Crime Information Center, 2008, available at: http://www.acic.org/statistics/Research/SO_Report_Final.pdf.
- Prescott, J.J., and Jonah E. Rockoff, *Do Sex Offender Registration and Notification Laws Affect Criminal Behavior?* Cambridge, Mass.: National Bureau of Economic Research, NBER Working Paper No. W13803, February 2008, available at: http://ssrn.com/abstract=1100584.
- Levenson, Jill S., David A. D'Amora, and Andrea L. Hern, "Megan's Law and Its Impact on Community Re-Entry for Sex Offenders," *Behavioral Sciences and the Law* 25 (2007): 587–602, available at: http://www.nacdl.org/sl_docs.nsf/issues/SexOffender_attachments/$FILE/Lev_Megan.pdf.
- Sandler, Jeffrey C., Naomi J. Freeman, and Kelly M. Socia, "Does a Watched Pot Boil? A Time-Series Analysis of New York State's Sex Offender Registration and Notification Law;" *Psychology, Public Policy, and Law* 14(4)(2008): 284–302, available at: http://psycnet.apa.org/index.cfm?fa=search.displayRecord&uid=2008-18509-003.


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# Sex Offender Registration and Notification: Research Finds Limited Effects in New Jersey

**FIND THIS STUDY**

The full report of the New Jersey study, *Megan's Law: Assessing the Practical and Monetary Efficacy,* can be accessed at http://www.ncjrs.gov/pdf files1/nij/grants/225370.pdf.

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# DOES A WATCHED POT BOIL? A Time-Series Analysis of New York State's Sex Offender Registration and Notification Law

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Despite the fact that the federal and many state governments have enacted registration and community notification laws as a means to better protect communities from sexual offending, limited empirical research has been conducted to examine the impact of such legislation on public safety. Therefore, utilizing time-series analyses, this study examined differences in sexual offense arrest rates before and after the enactment of New York State's Sex Offender Registration Act. Results provide no support for the effectiveness of registration and community notification laws in reducing sexual offending by: (a) rapists, (b) child molesters, (c) sexual recidivists, or (d) first-time sex offenders. Analyses also showed that over 95% of all sexual offense arrests were committed by first-time sex offenders, casting doubt on the ability of laws that target repeat offenders to meaningfully reduce sexual offending.

*Keywords:* sex offender, registration, notification, time-series analysis, public policy

Few types of crime command the same public attention and evoke the same level of outrage as sexual offenses. This fact is reflected in the unique handling of such offenses both by legislative bodies and media outlets. The most obvious example of differential legislative treatment is the relatively recent rise of registration, community notification, and residency restriction laws for sex offenders released back into local communities, as well as civil commitment laws for offenders about to be released. Such regulations have been largely inspired by public reactions to particularly heinous sexual offense cases (e.g., Adam Walsh Children Protection and Safety Act, 2006; Megan's Law, 1996; The Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act, 1994; The Pam Lychner Sexual Offender Tracking and Identification Act, 1996), yet registration and notification are not required for perpetrators of other heinous crimes such as murder or domestic violence.

Evidence of the differential treatment of sexual crimes can also be found in the media. For example, research has shown the media to overreport sexual crimes such as rape by a factor of almost 14 times compared with their actual rate of

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incidence (Ditton & Duffy, 1983) and to present sexual crimes in a manner that inspires fear significantly more often than it does when reporting a homicide, robbery, or assault (Dowler, 2006). Although researchers debate the exact reason(s) for this overrepresentation, most explanations center around the idea that sexual offenses are deemed to be more newsworthy and of interest to the public (Greer, 2003). Regardless of the rationale behind such differential reporting, however, some researchers are concerned about its impact. For example, Jones (1999) argued that "the media's desire to highlight only the most violent and horrendous sex crimes (with little attention focused on the rehabilitation of sex offenders) plays a large role in perpetuating society's belief that sex offenders cannot be rehabilitated" (p. 86). According to Jones, this perception, in turn, evokes an emotional response to sexual offenses, causing the public to lobby for legislation such as registration and community notification, which may have little meaningful impact on the actual rates of sexual victimization, given that the majority of sexual offenses are committed by a relative or acquaintance (Greenfeld, 1997; Snyder, 2000). Furthermore, this perception that sex offenders cannot be rehabilitated is not supported by research, which has found cognitive-behavioral therapy to significantly reduce rates of sexual recidivism (see Craig, Browne, & Stringer, 2003; Hatch-Maillette, Scalora, Huss, & Baumgartner, 2001; Lösel & Schmucker, 2005; McGrath, Cumming, Livingston, & Hoke, 2003).

Associated with the special level of attention given to sexual offenses (probably both contributing to and resulting from it) is a belief that released sex offenders pose a greater threat to communities than other released offenders. In his detailed analysis of sexual crime media coverage, Greer (2003) found "there is a clear assumption of recidivism, a taken-for-granted notion that sex offenders *will* recidivate" (p. 138). As with the assumption that sex offenders cannot be rehabilitated, this assumption is also not supported by research. For example, in its detailed analysis of 15 states, the Bureau of Justice Statistics found that only 5.3% of the 9,691 sex offenders released in 1994 were re-arrested for a new sex offense within 3 years of being released (Langan, Schmitt, & Durose, 2003), compared with re-arrest rates of 73.8% for property offenders and 66.7% for drug offenders (Langan & Levin, 2002).

Based on the assumptions mentioned earlier, however, it is not surprising that a great deal of effort has been spent crafting legislation that seeks to minimize future sexual victimization. Registration and community notification laws represent two such legislative initiatives. As a means to increase public safety, registration and notification laws seek to: (a) allow residents to know the whereabouts of convicted sex offenders, (b) serve as a deterrent for future sexual offenses, and (c) assist local law enforcement agencies in investigating and solving future sexual offenses (Lovell, 2001; Phillips, 1998). Despite the widespread use of these laws, little empirical research has investigated whether they are, in fact, increasing public safety. Such investigations are important given continuing, and often expensive, legislative efforts directed at convicted sex offenders, such as the Adam Walsh Child Protection and Safety Act (2006; which the Congressional Budget Office estimates will cost $1.5 billion over 5 years to implement). Thus, to address this gap in the current literature, the present study examined differences in sexual offense arrest rates before and after the enactment

of New York State's Sex Offender Registration Act (SORA) to determine whether these laws are increasing public safety.

## Effectiveness of Registration and Community Notification Laws

All 50 states and the District of Columbia have laws requiring the registration and community notification of convicted sex offenders (Lovell, 2001; Thomas, 2003). Surprisingly, however, little research has evaluated whether registration and community notification laws make released sex offenders more law abiding than they would be without such laws, and whether these laws do, in fact, increase public safety (Welchans, 2005).

The Washington State Institute for Public Policy (Schram & Milloy, 1995) conducted the first outcome study examining the effects of community notification. Re-arrests of 90 sex offenders who received the highest level of notification were compared with 90 matched sex offenders who were released prior to the enactment of the law and, thus, were not eligible for community notification. Although at the end of a 54-month period there was no significant difference in re-arrest rates between the two groups, the researchers determined (from survival curves) that sex offenders who were subject to community notification requirements were re-arrested more quickly than those not subject to notification. However, this study examined only recidivism as an outcome and had a very limited sample.

More recent research has continued to evaluate the effects of registration and community notification laws on sex offender recidivism rates. These studies have (a) examined convicted sexual psychopaths (a legal, statutory label, not a psychological label following clinical diagnosis) in an attempt to determine the likelihood that community notification would prevent future sexual offenses (Petrosino & Petrosino, 1999), (b) compared registered sex offenders subject to registration and community notification requirements with convicted sex offenders who would have been subject to such requirements had the laws been in effect at the time of their convictions (Adkins, Huff, Stageberg, Prell, & Musel, 2000), and (c) compared sex offenders who received extensive notification with those who received limited notification (Zevitz, 2006). Despite the differences in methodologies, all of these studies found limited support for the effectiveness of registration and community notification laws to reduce sex offender re-arrest and reconviction rates.

A recent study by Barnoski (2005), however, did find that community notification laws significantly reduced certain types of recidivism by sex offenders in Washington State. Specifically, Barnoski found that the 1990 enactment of Washington's Community Protection Act significantly reduced rates of sexual felony recidivism by sex offenders, and that the 1997 amendment of the notification law significantly reduced rates of both violent felony and sexual felony recidivism by sex offenders. However, this study had a number of weaknesses. First, as with the earlier analysis by Schram and Milloy (1995), it looked only at sex offender recidivism, ignoring the possibility that notification laws had any effect on rates of first-time offending. Second, as the analyses examined rates of recidivism at three separate points in time through percentage comparisons and a binary logistic regression, they did not take into account natural changes in

patterns of offending over time (McDowall & Loftin, 2005). As such, the reductions in offending noted by Barnoski (2005) may have simply been due to historical crime rate trends and, therefore, may have been unrelated to the enactment and amendment of Washington's registration and notification law.

In an attempt to account for any historical trends in crime rates, Walker, Maddan, Vásquez, VanHouten, and Ervin-McCarthy (2005) used time-series analysis to examine the number of rapes reported monthly through the Uniform Crime Reporting (UCR) system in 10 states to determine the general deterrent effect of registration and community notification laws. Consistent with previous research, results of their analyses indicated no systematic effects for registration and community notification laws to reduce incidents of sexual victimization. More specifically, there was no significant difference in the number of rapes before and after the passage of registration laws for six out of the ten states examined, and although three states did experience a significant decrease in rapes after the enactment of registration laws, one state experienced a sharp and significant increase. However, as the study did not model any nonsexual offense series, the observed changes could be the result of general interventions directed at all offending (e.g., changes in policing, crime reporting, sentencing) and not specifically a result of the enactment of registration laws. Furthermore, due to limitations of UCR data, the study was not able to model crimes committed by repeat versus first-time sex offenders, thereby not allowing for differential effects of the registration laws on these different offender groups.

Thus, taken as a whole, the results of the various studies cited above support the view of Zevitz (2006) that, "the anticipated preventive benefits of the community notification policy initiative would appear to be limited" (p. 205).

## Purpose

Given the lack of conclusive research regarding the effectiveness of registration and community notification laws to increase public safety, the current study sought to build on the extant literature by examining sexual offense arrest rates before and after the enactment of New York State's SORA. Thus, the primary research question was: Are there differences in sexual offense arrest rates before and after the enactment of SORA? Two additional research questions were: (a) Are registration and notification laws decreasing re-arrest rates for convicted sex offenders? and (b) Are registration and notification laws deterring nonregistered offenders from committing registerable sexual offenses?

## Method

### *New York State Registry*

New York State, in compliance with federal regulations, established SORA in 1995, which became effective January 21, 1996. Under Correction Law Article 6c, individuals convicted of registerable sexual offenses are required to release specified information to the state, such as their name and current home address. Sex offenders who were convicted, were under probation or parole supervision, or were discharged, paroled, or released on or after January 21, 1996, are mandated to register under this Act (Division of Criminal Justice Services, 2004).

In New York State, sex offenders are classified into three risk levels based on the court's assessment regarding offenders' likelihood to repeat the same or similar registerable offense. Decisions regarding risk levels are made based on, amongst others, offender's relationship to the victim, duration of the offense, use of a weapon, age of the victims, and extent to which the victim was injured. Level 1 represents a low risk of repeat offense; Level 2 indicates a moderate risk of repeat offense; and Level 3 represents a high risk of repeat offense. Risk levels determine both the length of registration as well as the extent of community notification, with Level 2 and Level 3 offenders registering for life and being subjected to the highest extent of community notification practices.

Local law enforcement agencies in communities where sex offenders live have the discretion to decide what, if any, information to release to vulnerable populations related to the nature of the offense committed by the offender. However, only information pertaining to Level 2 and Level 3 offenders can be released to the public. Although SORA did not standardize notification procedures, there are four main forms of community notification: (a) the public sex offender registry Web site, (b) community notification meetings, (c) dissemination of flyers and other mailings, and (d) informal communication with residents or door-to-door visits.

### *Data Source*

Data for this study were retrieved from New York State offender criminal history files, which were extracted by the New York State Division of Criminal Justice Services. These criminal history files contain information regarding characteristics related to arrest, conviction, disposition, and sentencing events. The criminal history files of every offender arrested for a registerable sexual offense between 1986 and 2006 (totaling over 170,000 sexual offense arrests and over 160,000 unique sex offenders) were used in this study.

### *Data*

Data for the analyses consisted of 21 years (252 months) of New York State monthly arrest counts for several types of offending aggregated to the state level.[1] Arrest counts were chosen as the focus for the study as sexual crimes are less likely than nonsexual crimes to be reported to authorities, and many that are reported are never prosecuted (Romeo & Williams, 1985). Thus, using a measure of conviction instead of arrest might considerably underestimate rates of offending. However, it should be noted that simply because an offender was arrested for a sexual offense does not imply the offender was convicted of that crime and, therefore, it is possible that using arrest data produces false-positive results (Romeo & Williams, 1985). Given the serious nature of sexual offenses and the amount of public attention they command, risking a false-positive result (i.e., finding that sex offender registries do reduce rates of sexual offending when they in fact do not) may be more defensible than risking a false-negative result (i.e.,

[1] Offenses were assigned to a month by the crime date whenever possible, and by the arrest date when a crime date was not available. Of the 894,002 total arrests aggregated for the current study, only 18,366 (2.05%) were missing a crime date.

finding that sex offender registries do not reduce rates of sexual offending when they in fact do).

The monthly arrest counts began with January 1986 (10 years before the enactment of SORA) and ended with December 2006 (11 years after the enactment of SORA). During this time period, New York State enacted no other special legislation to manage sex offenders, thereby allowing for clear interpretation of the impact of SORA's enactment.

In all, 17 different series of data were modeled: 9 test series and 8 comparison series. It is important to note, however, that SORA was amended twice since its 1996 enactment to include more offenses (eight were added in 1999 and seven were added in 2002). As the offenses added in these later amendments have different intervention dates, each of the nine test series modeled in the present study included only those offenses listed in the original 1996 version of SORA.[2] Also, the New York State consolidated criminal history files are top-charged based, meaning they only record the top charge associated with each arrest. Thus, if an offender had been arrested for fraud, robbery, and rape, only the rape charge would be recorded in the consolidated criminal history files. This fact is important to remember, especially with regard to the comparison series (i.e., sexual offenses are almost always the top charge for an arrest, while crimes such as larceny are not).

### *Test Series*

*Total number of registerable sex offenses (RSOs).* This series included all arrests for any of the offenses that required registration as of January 1996 in New York State (see SORA, §168a), including rape, incest, sodomy, sexual misconduct, sexual abuse, and promoting sexual performance by a child. The mean number of total RSO arrests per month was 640.73 ($SD$ = 96.20), with 169,051 different offenders having been arrested for a RSO from 1986 to 2006.[3]

*Total number of rapes.* As many studies and typologies of sex offenders have found rapists and child molesters to be characterized by different offending patterns (e.g., Hood, Shute, Feilzer, & Wilcox, 2002; Knight, Rosenberg, & Schneider, 1985), these types of offending were broken out from the total RSO variable and analyzed separately. Thus, this series included all arrests for rape in the third, second, or first degree (PL §130.25–130.35). According to these statutes, rape in New York State is generally defined as sexual intercourse (forcible or otherwise) either: (a) without the other party's consent, or (b) with a party incapable of giving consent. The mean number of rape arrests per month was 166.42 ($SD$ = 26.97).

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[2] Attempts were made to model the offenses added in these later amendments separately (i.e., all the 1999 additions together and all the 2002 additions together), but the small number of monthly arrests for these few offenses made the analyses difficult, if not impossible, to reliably conduct and interpret. Those results that were interpretable, however, were similar to those generated for the original 1996 offenses.

[3] Of the 169,051 different offenders who were arrested for a RSO from 1986 to 2006, 68,617 different offenders (40.59%) were convicted of a RSO.

*Total number of child molestations.* The monthly counts of arrests for child molestation were created by summing the monthly arrest counts for several sexual crimes committed against children, including sexual acts against children (PL §130.45–130.50), the use and promotion of children in a sexual performance (PL §263.05–263.15), and the possession of obscene material involving children (PL §263.16). By analyzing arrests for child molestation arrest separately from those for rape, the analyses were able to test whether the significant declines in child sexual abuse observed in the 1990s (Jones, Finkelhor, & Halter, 2006; Mitchell, Finkelhor, & Wolak, 2007) were related (at least in New York State) to the enactment of registration and notification laws. The mean number of child molestation arrests per month was 42.08 ($SD$ = 10.42).

*RSOs by convicted offenders.* This series included all RSO arrests of offenders who had previously been convicted of a sexual offense. In other words, this series was a measure of general sexual recidivism. Previous conviction of a registerable offense was used as the prerequisite for recidivism rather than previous arrest, as only convicted sex offenders are added to the registry (see SORA, §168a). Thus, to accurately test the effect of registration on already registered offenders (or offenders who would have been registered, for those convicted of a RSO prior to SORA's enactment), the offender had to have a previous RSO conviction. The mean number of RSO arrests of offenders with a prior RSO conviction (i.e., sexual recidivism) per month was 26.43 ($SD$ = 10.50), which represents 4.12% of all RSO arrests per month.

*Rapes by convicted offenders.* This variable was calculated in the same way as RSOs by convicted sex offenders, but was specific to rape arrests following an RSO conviction. The mean number of rape arrests for offenders with any prior RSO conviction per month was 6.75 ($SD$ = 3.64), which represents 4.06% of all rape arrests per month.

*Child molestations by convicted offenders.* The mean number of child molestation arrests of offenders with any prior RSO conviction per month was 2.47 ($SD$ = 2.00), which represents 5.88% of all child molestation arrests per month.

*RSOs by nonconvicted offenders.* To examine the possible deterrent effect of SORA on those who were unregistered at the time of their offense, this series included only RSO arrests of those offenders who had not previously been convicted of a sexual offense. The mean number of RSO arrests of offenders without a prior RSO conviction per month was 614.31 ($SD$ = 90.96), which represents 95.88% of all RSO arrests per month.

*Rapes by nonconvicted offenders.* The mean number of rape arrests for offenders without any prior RSO conviction per month was 159.67 ($SD$ = 25.72), which represents 95.94% of all rape arrests per month.

*Child molestations by nonconvicted offenders.* The mean number of child molestation arrests for offenders without any prior RSO conviction per month was 39.61 ($SD$ = 9.94), which represents 94.12% of all child molestation arrests per month.

The average number of monthly arrests in New York State for each of these nine series can be found in Figures 1 (RSOs), 2 (rapes), and 3 (child molestations).

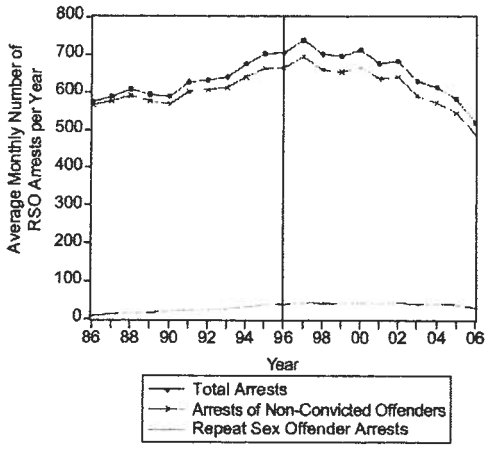


*Figure 1.* Average monthly registerable sex offense (RSO) arrests per year before and after the enactment of State's Sex Offender Registration Act (SORA).

## *Comparison Series*

As this study specifically sought to examine the effectiveness of New York State's registration and community notification law in reducing sexual offending, it was necessary to examine the effect of other possible influences that might have also reduced rates of sexual offending independent of SORA. For example, changes in policing and sentencing styles over the last 20 years may have also altered offending patterns, such that all types of offending (or all types of interpersonal offending) declined over this period. If this were in fact the case, any reductions in sexual offending may be due to influences other than the enactment of SORA.

Thus, to investigate other influences or alternative explanations for any

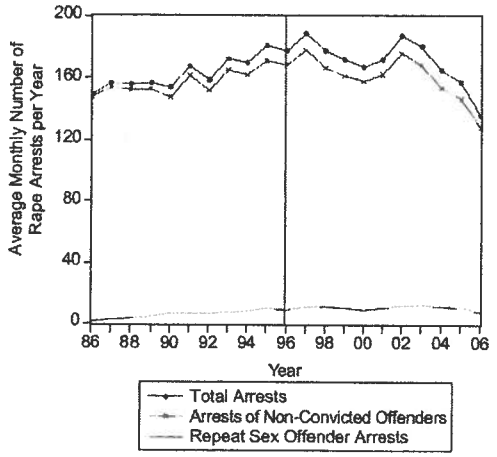


*Figure 2.* Average monthly rape arrests per year before and after the enactment of State's Sex Offender Registration Act (SORA).

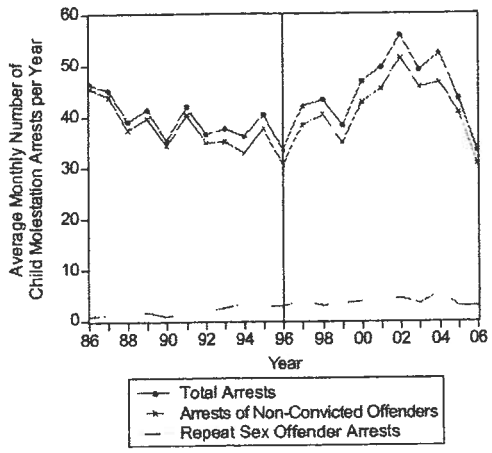


*Figure 3.* Average monthly child molestation arrests per year before and after the enactment of State's Sex Offender Registration Act (SORA).

changes in sexual offending behavior (and therefore clarify the impact of SORA), comparison series of arrests were examined for four types of nonsexual offenses, two interpersonal crimes (assault and robbery), and two property crimes (burglary and larceny). Because these series were intended to control for influences operating both outside and within the group of offenders included in the sexual offending analyses, each of these offending types were modeled two ways: (a) all arrests for non-sex offenders in New York State (outside group influences), and (b) all arrests for sex offenders in New York State (i.e., those who were arrested for a RSO between 1986 and 2006; within group influences). That is, this second group of comparison series was composed only of non-sexual arrests by sex offenders, and did not include nonsexual arrests by non-sex offenders.

*Total number of assaults.* This series included all arrests for assault, which in New York State is generally defined as recklessly, negligently, or intentionally causing a person injury (PL §120.00–120.10). The mean number of assault arrests per month for all non-sex offenders in New York State was 5,118.56 ($SD$ = 887.24), whereas for this study's sample of sex offenders it was 453.61 ($SD$ = 84.02).

*Total number of robberies.* This series included all arrests for robbery, which in New York State is generally defined as using or threatening to use immediate physical force during the commission of a larceny (PL §160.00). The mean number of robbery arrests per month for all non-sex offenders in New York State was 1,570.23 ($SD$ = 381.31), whereas for this study's sample of sex offenders it was 229.72 ($SD$ = 84.06).

*Total number of burglaries.* This series included all arrests for burglary, which in New York State is generally defined as knowingly and unlawfully entering or remaining in a building with the intent to commit a crime therein (PL §140.20–140.30). The mean number of burglary arrests per month for all non-sex offenders in New York State was 2,425.53 ($SD$ = 374.99), while for this study's sample of sex offenders it was 243.35 ($SD$ = 40.37).

*Total number of larcenies.* This series included all arrests for larceny, which in New York State is generally defined as the wrongful taking, obtaining, or withholding of property from the property's rightful owner (PL §155.05). The mean number of larceny arrests per month for all non-sex offenders in New York State was 5,273.93 ($SD$ = 671.25), whereas for this study's sample of sex offenders it was 210.15 ($SD$ = 36.31).

### *Intervention Variable*

The intervention variable (or variable of interest) in the present analysis was the enactment of SORA in January 1996. Thus, a dichotomous variable was created to represent the enactment of SORA, with the variable being coded as zero (*before SORA*) for all months prior to January 1996 and coded as one (*after SORA*) for January 1996 and all months thereafter.

### *Analysis*

Univariate Box-Jenkins interrupted autoregressive integrated moving average (ARIMA) analyses were used to test the effect of SORA's enactment on all 17 offense series. This analytic approach was selected due to its ability to model the autocorrelation almost always found in time series data (McDowall, McCleary, Meidinger, & Hay, 1980). That is, although the analysis in its basic form is a comparison of the number of monthly arrests series before the enactment of SORA versus after the enactment of SORA, simply using ordinary least squares regression (OLS) to conduct the comparison would be unreliable. Specifically, using OLS on autocorrelated data will result in negatively biased standard errors, which then result in artificially and incorrectly inflated $t$ values (McDowall et al., 1980). These inflated $t$ values lead to deflated significance ($p$) values, meaning the analysis has a much greater chance of returning a false-positive result (i.e., finding significance when there is in fact none). ARIMA time series analyses are, therefore, an improvement over OLS when analyzing time series data, as ARIMA models remove the influence of the autocorrelation from the analysis.

The Box-Jenkins approach to ARIMA analyses involves a three-phase process: (a) identification, (b) estimation, and (c) diagnosis (Box & Jenkins, 1976). In the identification phase, the autocorrelation process or processes (autoregressive, integrated, moving average, or some combination thereof) at work in the data are identified by examining the autocorrelation function (ACF; or correlogram) and partial autocorrelation function (PACF) for the series. Once the autocorrelation process(es) has been identified, a model is then estimated in an attempt to remove the autocorrelation. Following the estimation, the possible presence of residual autocorrelation in the data is investigated in the diagnosis phase through examination of the ACF, PACF, and Ljung-Box Q-statistics for the estimated model. If there is no residual autocorrelation (i.e., all that remains is uncorrelated white-noise), the model is deemed to fit the data. If there is residual autocorrelation, however, the model is deemed to not fit the data and the identification, estimation, and diagnosis phases are repeated.

## Results

As stated earlier, the analysis of each series began with an examination of the series' ACF and PACF. In all 17 cases, both the ACF and PACF showed integrated processes to be present in the data. Thus, each series was differenced (i.e., lagged one time period and subtracted from itself) in order to control for the integrated autocorrelation. Differencing the equations also changed the analysis from being one of the raw arrest counts per month to being one of the change in arrest counts from month to month, which does not alter the shape of the analysis or its interpretation (McDowall et al., 1980). The ACFs and PACFs of these differenced variables were then examined, and all showed 12-month seasonal integrated patterns to be at work in the data (which is common when analyzing monthly data, as many crime rates rise and fall with the seasons). This 12-month seasonal integrated autocorrelation was then controlled for by seasonally differencing each of the normally differenced series (i.e., by lagging each series 12 months and subtracting it from itself). The ACFs and PACFs of each series were then clearer of autocorrelation, though they still showed both first-order moving average and first-order 12-month seasonal moving average processes present in the data. Thus, equations were estimated in which the dependent variables (arrest counts per month) were differenced both normally and 12-month seasonally, with each equation including components to control for both the first-order moving average and the first-order 12-month seasonal moving average processes, as well as a constant.[4] At this point the ACFs, PACFs, and Ljung-Box Q-statistics for each series showed no residual autocorrelation at any specific point in the data or in the dataset as a whole, meaning the final model ARIMA $(0,1,1)(0,1,1)_{12}$ controlled for all the autocorrelation in the analysis.[5]

Once all the autocorrelation was removed from the analyses (i.e., all that was left was white noise), the dichotomous intervention variable was included in the model. By being coded zero for all months before January 1996 and one for all months afterward, it is essentially a test of whether the average number of monthly arrests before the enactment of SORA differed from those after the enactment. If the coefficient for the variable was positive in an analysis, the number of arrests rose after the enactment of SORA, while a negative coefficient indicated the number of arrests dropped. Before the coefficient for the intervention variable was assessed in any of the analyses, however, the ACFs, PACFs, and Ljung-Box Q-statistics for the equations with the intervention were assessed to see if each remained free from autocorrelation. As in each case the series showed no residual autocorrelation at any specific point in the data or in the dataset as a whole (and the coefficients for both moving average components fit their neces-

[4] If the constant was found to be insignificant (indicating the integrated process was most likely a random walk), it was removed and the equation was re-estimated in order to make estimation of the standard errors more efficient. Otherwise, if the constant was significant (indicating the integrated process was most likely a stochastic trend and the average number of arrests for that type of crime was significantly different than zero), it was retained in the model.

[5] This model, ARIMA $(0,1,1)(0,1,1)_{12}$, is sometimes referred to as the airline model (Box & Jenkins, 1976), and is fairly common in practice.

sary parameters), the intervention coefficients could be meaningfully interpreted (see Table 1).

As can be seen in Table 1, none of the intervention coefficients for any of the nine types of sexual offending reached significance and were, therefore, all statistically no different than zero. Likewise, as can be seen in Table 2, seven of the eight intervention coefficients for the comparison series were also insignificant, with only the number of robbery arrests within the sample of sex offenders showing a significant reduction following the enactment of SORA. Specifically, there was an average of 31.32 fewer robberies per month ($p < .05$) committed by those arrested for a RSO between 1986 and 2006 following the enactment of SORA than there was before SORA. This finding should be interpreted with caution, however, as it was the only series of the 17 tested to reach significance. That is, according to probability, 1 out of 17 series should reach the $p < .05$ level of significance purely by chance. If a Bonferroni correction were made to the significance level to account for the increased possibility of committing a Type I error (i.e., a false positive), the observed change in robbery arrests within the sex offender sample pre- and post-SORA would not reach significance.

While this study's finding of significantly reduced rates of robbery within the sample of sex offenders supports one finding of Barnoski (2005; i.e., that the enactment of Washington State's community notification law reduced rates of violent felony recidivism by sex offenders), the null findings with regard to the impact of registration and community notification on assault and sexual recidivism do not. These conflicting findings are likely due to two facts: (a) Barnoski's analytic technique did not account for historical crime trends, and (b) as Barnoski's regressions were performed on autocorrelated data, the coefficient standard errors were

Table 1
*Monthly Arrest Averages and Times Series Results by Offender and Offense Type for Test Series*

| | Monthly arrests, mean (*SD*) | Percentage of total | Intervention coefficient[a] | *t* |
|---|---|---|---|---|
| Registerable sex offenses | | | | |
| Total | 640.73 (96.20) | | 9.85 | 0.31 |
| Recidivisms | 26.43 (10.50) | 4.12 | −0.14 | −0.05 |
| First-time offenses | 614.31 (90.96) | 95.88 | 10.49 | 0.35 |
| Rapes | | | | |
| Total | 166.42 (26.97) | | −1.58 | −0.14 |
| Recidivisms | 6.75 (3.64) | 4.06 | 0.36 | 0.50 |
| First-time offenses | 159.67 (25.72) | 95.94 | −3.12 | −0.28 |
| Child molestations | | | | |
| Total | 42.08 (10.42) | | −10.00 | −1.92 |
| Recidivisms | 2.47 (2.00) | 5.88 | 0.17 | 0.26 |
| First-time offenses | 39.61 (9.94) | 94.12 | −8.88 | −1.81 |

*Note.* All models were of the form autoregressive integrated moving average (ARIMA) $(0,1,1)(0,1,1)_{12}$, meaning they had both first-order and seasonal first-order integrated and moving average components.

[a] The intervention coefficient represents the average monthly change (after correcting for autocorrelation in the data) in arrests for each offense type after enactment of the Sex Offender Registration Act.

Table 2
*Monthly Arrest Averages and Times Series Results by Offense Type for Control Series*

| | Monthly arrests, mean (*SD*) | Intervention coefficient[a] | *t* |
|---|---|---|---|
| All New York State offenders | | | |
| Assaults | 5,118.56 (887.24) | 98.71 | 0.56 |
| Robberies | 1,570.23 (381.31) | −69.44 | −0.84 |
| Burglaries | 2,425.53 (374.99) | 69.47 | 0.69 |
| Larcenies | 5,273.93 (671.25) | −156.45 | −0.95 |
| Within the sex offender sample | | | |
| Assaults | 453.61 (84.02) | −26.90 | −1.12 |
| Robberies | 229.72 (84.06) | −31.32 | −2.04* |
| Burglaries | 243.35 (40.37) | −7.68 | −0.40 |
| Larcenies | 210.15 (36.31) | 1.42 | 0.11 |

*Note.* All models were of the form integrated moving average (ARIMA) $(0,1,1)(0,1,1)_{12}$, meaning they had both first-order and seasonal first-order integrated and moving average components.
[a] The intervention coefficient represents the average monthly change (after correcting for autocorrelation in the data) in arrests for each offense type after enactment of the Sex Offender Registration Act.
* $p < .05$.

likely deflated and, therefore, appeared more significant than they in fact were (see above). The possibility of a natural drop in the crime rate or some non-sex offender related factor contributing to Barnoski's findings is supported by the fact that Washington State's rate of violent crimes (per 1,000 population) dropped each year from 1995 to 2006, while its rate of property crimes (per 1,000 population) dropped each year from 1995 to 2003 (Washington Statistical Analysis Center, 2008). Thus, it appears likely that the reductions in the sexual and violent felony recidivism of sex offenders observed by Barnoski may have been at least in part due to these trends, and once these trends were controlled for in the present study, the impact of registration and notification laws failed to reach significance.

Finally, to test whether the use of arrest counts was obscuring the impact of SORA's enactment, analyses were also conducted on series for: (a) number of monthly RSO convictions, and (b) the monthly ratio of RSO convictions to RSO arrests. As with the arrest analyses, nine different tests series (i.e., all RSOs, rapes, and child molestations examined by total number, sexual recidivisms, and first-time sex offenses) were modeled for each of these different count types. Although not shown, and as with the arrests series, none of these additional conviction series showed any significant change from before the enactment of SORA to afterward. Thus, it appears that the enactment of SORA had little, if any, impact on rates of general offending in New York State and no significant impact on rates of sexual offending.

## Discussion

The present study used 252 months of arrest data and univariate ARIMA time series analyses to evaluate the impact of New York State's SORA. More specif-

ically, the study proposed the general question of whether there are differences in sexual offense arrest rates before and after the enactment of SORA, as well as the two specific questions of: (a) whether registration and notification laws are decreasing re-arrest rates for convicted sex offenders, or (b) whether registration and notification laws are deterring nonregistered offenders from committing registerable sexual offenses. According to the analyses, all three of these questions are answered negatively. That is, results of the analyses indicate that the 1996 enactment of SORA (and thus the beginning of the registry) had no significant impact on rates of total sexual offending, rape, or child molestation, whether viewed as a whole or in terms of offenses committed by first-time sex offenders or those committed by previously convicted sex offenders (i.e., repeat offenders). The only type of offending that was found to have significantly changed following the enactment of SORA was robbery within the present sample of New York State sex offenders (i.e., this finding did not hold for all offenders in New York State), with the number of robberies per month having significantly declined. Given the number of separate analyses conducted for this study (and, therefore, the increased chance of one reaching significance purely by chance), this finding should be interpreted with caution.

The current study also found that 95.9% of all arrests for any RSO, 95.9% of all arrests for rape, and 94.1% of all arrests for child molestation were of first-time sex offenders. Thus, as none of these offenders had any prior convictions for sexual offenses, none of them were on the sex offender registry (or would have been on the registry had it existed) at the time of their offenses. This finding casts doubts on the ability of sex offender registration and notification laws, as well as residency and occupational restriction laws, to actually reduce sexual offending. That is, these laws were specifically designed to limit the ability of convicted sex offenders to re-offend by limiting their opportunities to do so, and it appears that only a small portion of sexual offending (i.e., 4-5%) might be influenced by these legislative measures.

Thus, the results of the present study support those of prior research (e.g., Schram & Milloy, 1995; Walker et al., 2005) and cast serious doubts on the effectiveness of sex offender registries to significantly reduce rates of sexual offending. The limited effectiveness of registration and community notification laws may be due to the fact that these laws were largely based on commonly held myths and misconceptions regarding sexual offenses and sex offenders. First, community members commonly believe that most, if not all, sex offenders will inevitably re-offend (Levenson, Brannon, Fortney, & Baker, 2007; Levenson & Cotter, 2005a). However, as stated earlier, research has found relatively low recidivism rates for sex offenders (ranging from 5% to 19%; Hanson & Bussière, 1998; Langan et al., 2003). Furthermore, offenders without prior sexual offense convictions commit the majority of sexual offenses. In the current study, only about 4% of those arrested for a sexual offense had a prior sexual offense conviction. This finding is significant because it illustrates the limited reach of the sex offender registry. That is, approximately 96% of offenders arrested for sexual offenses have no prior sexual offense convictions and, thus, would not have been on a sex offender registry at the time of the offense.

Second, registration and community notification laws are based on the false assumption that strangers commit most sexual offenses. However, the research

unequivocally finds that sex offenders are more likely to victimize family members, intimate partners, or acquaintances. In fact, according to a Bureau of Justice study (Snyder, 2000), 93% of child sexual abuse victims knew their abuser (34.3% were family members and 58.7% were acquaintances). In addition, approximately 9 out of 10 adult rape or sexual assault victims had a prior relationship with the offender either as a family member, intimate, or acquaintance (Greenfeld, 1997). With most sexual crimes being committed by family members or someone known to the victim, registration laws may be ineffective because they focus, almost exclusively, on sexual offenses committed by strangers. Despite the public perception that sex offenders are strangers stalking playgrounds and other areas where children congregate, the majority of offenses occur in the victims' home or the home of a friend, neighbor, or relative (Greenfeld, 1997).

In addition, some researchers have argued that registration and community notification may, in fact, discourage victims of sexual abuse from reporting the incidents to authorities (Edwards & Hensley, 2001). As previously stated, the vast majority of sexual offense victims know their perpetrator. Although unintentional, community notification can often lead to identification of the victim, especially when the victim is an offender's child. As such, incest victims may not report the offense to avoid dealing with the impact that public notification would have on their family (Freeman-Longo, 1996).

Because registration and community notification laws were based on false assumptions regarding sex offenders and sexual offenses, attention and resources are diverted from the most common types of sexual offenses (those committed by first-time sex offenders and those who have a pre-established relationship with the victim) to ones perpetrated by the stereotypical sex offender. In order to increase the effectiveness of these laws to protect public safety, reactionary policies (regardless of how well intended) should be replaced with policies based on empirical findings. Public education should also play a key role in enhancing the ability of registration and community notification laws to increase public safety. Community members should be taught accurate, scientifically validated information about sex offenders and the true risk they pose to society. Dispelling the myths currently held by the public could have a meaningful impact on effective sex offender management by influencing community leaders and policymakers.

### *Limitations*

The major limitations of this study, as with most studies that use official data sources, are those of data availability. The most notable of these is that the outcome measure, arrest for a registerable sex offense, was only an approximation of the true behavior of interest: sexual offending. As stated earlier, sexual arrest was chosen as the proxy to sexual offending as, of the variables available, it was most likely to show the impact of registration and notification. However, it would be very useful for a study to replicate the analyses presented here with a true measure of offending.

Other limitations are that the analyses do not check for differential impacts of registration and notification laws by geographic area, offender risk level, or victim-offender relationship (e.g., offender and victim knew each other before). It

may be, therefore, that registration and notification laws have had a very strong impact in suburban and rural areas, but not urban areas. (This question is especially interesting as, although analyses in the present study investigate different types of sexual offending in greater detail than previous studies, they do so in only one state.) Likewise, it may be that registration and notification has impacted the offending of less serious (lower risk) offenders, but not more serious (higher risk) offenders. Future studies should investigate such possibilities by including measures of these variables in their analyses.

## Conclusion

Sex offenders evoke little sympathy from the public and, as such, the popularity of registration and community notification laws is understandable. However, it is becoming increasingly clear from the growing body of research that registration and community notification laws are not an effective strategy for reducing sexual offenses. In fact, focusing attention and resources on the small number of known, registered sex offenders detracts attention from the more common types of sexual offenses that occur, leaving people vulnerable to sexual abuse and creating a false sense of security.

Furthermore, the results of this and previous studies indicate that sex offender legislation created without empirical research to support its ability (or possible ability) to reduce sexual offending can not only be ineffective and wasteful, but can also have unintended and often negative consequences. For example, community notification and residency restriction laws have been found to make it more difficult for released sex offenders to successfully integrate back into society (Levenson & Cotter, 2005b; Levenson, D'Amora, & Hern, 2007), thereby increasing their risk to re-offend (especially those subject to community notification; Freeman, 2008). Such findings are especially important in light of continuing legislative efforts directed at controlling convicted sex offenders such as the Adam Walsh Child Protection and Safety Act (2006), which lacks empirical research to support its effectiveness for increasing public safety.

Given the limited resources available for sex offender management, perhaps communities would be better served if their scarce resources were used for sexual abuse prevention initiatives designed to educate the public on the realities of sexual offenses and sex offenders. As Berliner (1996) noted, registration and community notification laws should not replace sexual abuse prevention efforts. Moreover, resources would be better spent on evidence-based sex offender management strategies that have been shown to reduce sexual offending, such as cognitive-behavioral treatment programs for offenders (Lösel & Schmucker, 2005; McGrath et al., 2003).

The overarching goal of sex offender legislation is to make communities safer and reduce the number of people who are sexually victimized. As Prentky (1996) clearly argues, "the singular consideration should be whether community notification will in fact reduce victimization rates or whether it will merely provide a dangerous false sense of security" (p. 297). Given the serious nature of sexual victimizations, policymakers should not be complacent with the current registration and community notification system. Registration and community notification should only be one element of the public response to sexual offending (Berliner,

1996). The question of how society can best be protected from sexual victimization remains, but empirical research, in both previous studies and the current one, indicates that existing registration and community notification laws are largely ineffective.

## References

Adam Walsh Child Protection and Safety Act, H.R. 4472 (109th) (2006).

Adkins, G., Huff, D., Stageberg, P., Prell, L., & Musel, S. (2000). *The Iowa sex offender registry and recidivism.* Des Moines, IA: Iowa Department of Human Rights, Division of Criminal and Juvenile Justice Planning and Statistical Analysis Center.

Barnoski, R. (2005). *Sex offender sentencing in Washington State: Has community notification reduced recidivism?* Olympia, WA: Washington Institute for Public Policy.

Berliner, L. (1996). Community notification: Neither a panacea nor calamity. *Sexual Abuse: A Journal of Research and Treatment, 8,* 101–104.

Box, G. E. P., & Jenkins, G. M. (1976). *Time series analysis: Forecasting and control.* San Francisco: Holden-Day.

Craig, L. A., Browne, K. D., & Stringer, I. (2003). Treatment and sexual offence recidivism. *Trauma, Violence, & Abuse, 4,* 70–89.

Ditton, J., & Duffy, J. (1983). Bias in the newspaper reporting of crime news. *British Journal of Criminology, 23,* 159–165.

Division of Criminal Justice Services (DCJS). (2004). *About the New York sex offender registry and the Sex Offender Registration Act.* Retrieved June 28, 2004, from http://criminaljustice.state.ny.us

Dowler, K. (2006). Sex, lies, and videotape: The presentation of sex crime in local television news. *Journal of Criminal Justice, 34,* 383–392.

Edwards, W., & Hensley, C. (2001). Contextualizing sex offender management legislation and policy: Evaluating the problem of latent consequences in community notification laws. *International Journal of Offender Therapy and Comparative Criminology, 45,* 83–101.

Freeman, N. J. (2008). *The public safety impact of community notification laws: Re-arrest of convicted sex offenders.* Unpublished doctoral dissertation, University at Albany, Albany, New York.

Freeman-Longo, R. E. (1996). Prevention or problem. *Sexual Abuse: A Journal of Research and Treatment, 8,* 91–100.

Greenfeld, L. (1997). *Sex offenses and offenders: An analysis of data on rape and sexual assault.* Washington, DC: Bureau of Justice Statistics.

Greer, C. (2003). *Sex crime and the media.* Devon, United Kingdom: Willan Publishing.

Hanson, R. K., & Bussière, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology, 66,* 348–362.

Hatch-Maillette, M. A., Scalora, M. J., Huss, M. T., & Baumgartner, J. V. (2001). Criminal thinking patterns: Are sex offenders unique? *Internation Journal of Offender Therapy and Comparative Criminology, 45,* 102–117.

Hood, R., Shute, S., Feilzer, M., & Wilcox, A. (2002). Sex offenders emerging from long-term imprisonment. *The British Journal of Criminology, 42,* 371–394.

Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act, 42 U.S.C. 14071 (1994).

Jones, K. D. (1999). The media and Megan's Law: Is community notification the answer? *Journal of Humanistic Counseling, Education and Development, 38,* 80–88.

Jones, L. M., Finkelhor, D., & Halter, S. (2006). Child maltreatment trends in the 1990s:

Why does neglect differ from sexual and physical abuse. *Child Maltreatment, 11,* 107–120.

Knight, R. A., Rosenberg, R., & Schneider, B. A. (1985). Classification of sexual offenders: Perspectives, methods, and validation. In A. W. Burgess (Ed.), *Rape and sexual assault: A research handbook* (pp. 222–293). New York: Garland Publishing.

Lösel, F., & Schmucker, M. (2005). The effectiveness of treatment for sexual offenders: A comprehensive meta-analysis. *Journal of Experimental Criminology, 1,* 117–146.

Langan, P. A., & Levin, D. J. (2002). *Recidivism of prisoners released in 1994.* Washington, DC: Bureau of Justice Statistics.

Langan, P. A., Schmitt, E. L., & Durose, M. R. (2003). *Recidivism of sex offenders released from prison in 1994.* Washington, DC: Bureau of Justice Statistics.

Levenson, J. S., Brannon, Y. N., Fortney, T., & Baker, J. (2007). Public perceptions about sex offenders and community notification policies. *Analyses of Social Issues and Public Policy, 7,* 1–25.

Levenson, J. S., & Cotter, L. P. (2005a). The effects of Megan's Law on sex offender reintegration. *Journal of Contemporary Criminal Justice, 21,* 49–66.

Levenson, J. S., & Cotter, L. P. (2005b). The impact of sex offender residence restrictions: 1,000 feet from danger or one step from absurd? *International Journal of Offender Therapy & Comparative Criminology, 49,* 168–178.

Levenson, J. S., D'Amora, D. A., & Hern, A. L. (2007). Megan's Law and its impact on community re-entry for sex offenders. *Behavioral Sciences & the Law, 25,* 587–602.

Lovell, E. (2001). *Megan's Law: Does it protect children? A review of evidence on the impact community notification as legislated for through Megan's Law in the United States. Recommendations for policy-makers in the United Kingdom.* London: NSPCC.

McDowall, D., & Loftin, C. (2005). Are crime rate trends historically contingent? *Journal of Research in Crime and Delinquency, 42,* 359–383.

McDowall, D., McCleary, R., Meidinger, E. E., & Hay, A. J. (1980). *Interrupted time series analysis.* Thousand Oaks, CA: Sage Publications.

McGrath, R. J., Cumming, G., Livingston, J. A., & Hoke, S. E. (2003). Outcome of a treatment program for adult sex offenders: From prison to community. *Journal of Interpersonal Violence, 18,* 3–17.

Megan's Law, Pub. L. No. 104–145, 110 Stat. 1345 (1996).

Mitchell, K. J., Finkelhor, D., & Wolak, J. (2007). Youth Internet users at risk for the most serious online sexual solicitations. *American Journal of Preventative Medicine, 32,* 532–537.

Pam Lyncher Sexual Offender Tracking and Identification Act, 42 U.S.C. 14071(b)(6)(B)(i)–(ii).

Petrosino, A. J., & Petrosino, C. (1999). The public safety potential of Megan's Law in Massachusetts: An assessment from a sample of criminal sexual psychopaths. *Crime & Delinquency, 45,* 140–158.

Phillips, D. M. (1998). *Community notification as viewed by Washington's citizens.* Olympia, WA: Washington State Institute for Public Policy.

Prentky, R. A. (1996). Community notification and constructive risk reduction. *Journal of Interpersonal Violence, 11,* 295–298.

Romeo, J. J., & Williams, L. M. (1985). Recidivism among convicted sex offenders: A 10-year followup study. *Federal Probation, 49,* 58–64.

Schram, D. D., & Milloy, C. D. (1995). *Community notification: A study of offender characteristics and recidivism.* Olympia, WA: Washington State Institute for Public Policy.

Sex Offender Registration Act (SORA), Correction Law Article 6c (1995).

Snyder, H. N. (2000). *Sexual assault of young children as reported to law enforcement:*

*Victim, incident, and offender characteristics.* Washington, DC: National Incident-Based Reporting System, U.S. Department of Justice.

Thomas, T. (2003). Sex offender community notification: Experiences from America. *The Howard Journal, 42,* 217–228.

Walker, J. T., Maddan, S., Vásquez, B. E., VanHouten, A. C., & Ervin-McCarthy, G. (2005). *The influence of sex offender registration and notification laws in the United States.* Retrieved June 1, 2007, from www.acic.org

Washington Statistical Analysis Center. (2008). *Crimes per 1,000 population.* Olympia, WA: Office of Financial Management. Retrieved August 13, 2008, from http://wa-state-ofm.us/UniformCrimeReport/

Welchans, S. (2005). Megan's Law: Evaluations of sexual offender registries. *Criminal Justice Policy Review, 16,* 123–140.

Zevitz, R. G. (2006). Sex offender community notification: Its role in recidivism and offender reintegration. *Criminal Justice Studies, 19,* 193–208.

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