

**AGENDA: RULES, REGULATIONS, & PARKS COMMITTEE**  
**425 Water Street, Lomira**  
**April 9, 2025 6pm**

The committee will meet to discuss the following:

- Sexual offender residency restrictions, findings, and intent ordinance
- Policies for private events held at Lomira Pool
- Impact fees

A quorum of the Village Board trustees may be present at this committee meeting for the purpose of gathering information and possible discussion on items listed on this agenda. However, unless otherwise noted in this agenda, no official action by the Village Board will be taken at this meeting.

Agendas are posted in the following places: Lomira municipal building and website [www.villageoflomira.gov](http://www.villageoflomira.gov) at least 24 hours before meeting(s). Persons requiring additional services to participate in any public meeting should contact the Clerk-Treasurer's office at 920-269-4112 option 2 for assistance prior to the meeting.

Posted 4/3/25 3pm Lomira Municipal Building, [www.villageoflomira.gov/agendas-minutes](http://www.villageoflomira.gov/agendas-minutes)

Jenna Rhein  
Village of Lomira Administrator-Clerk-Treasurer

## Ordinance #371, Sex Offender Regulations

The Board of the Village of Lomira, Dodge County, Wisconsin hereby amends Section 16-12 of the Municipal Code to read as follows:

### Sec. 16-12 Sexual Offender Residency Restrictions, Findings and Intent.

#### (a) Recitals.

1. Whereas, after review of existing case law and sex offender restriction ordinances from other cities and maps of locations where children are known to congregate, the city adopted sex offender residency restrictions by ordinance on October 7, 2008.
2. Whereas, upon recent review of an order and published opinion in the case of Hoffman, et al. v. Village of Pleasant Prairie, Case No. 16-CF-697-JES from the United States District Court, Eastern District of Wisconsin, the city recommended review of the ordinance codified in this section in light of this most recent court decision and determined that additional revisions should be made to the ordinance.
3. Whereas, on December 19, 2017, the Sun Prairie Committee of the Whole held a meeting open to the public and reviewed and discussed the ordinance as well as the following written materials:
  - a. "Recidivism of Adult Sexual Offenders." U.S. Department of Justice, July 2015, SOMAPI (Sex Offender Management Assessment and Planning Initiative); and
  - b. "An Overview of Sex Offender Management." July 2002, U.S. Department of Justice, SCOM Center for Sex Offender Management; and
  - c. "There Goes the Neighborhood? Estimate of the Impact of Crime Risk on Property Values from Megan's Laws." May 2006, National Bureau of Economic Research; and
  - d. Order and Opinion of the Honorable J.P. Stadtmueller of the United States District Court, Eastern District of Wisconsin, Hoffman, et al. v. Village of Pleasant Prairie, Case No. 16-CF-697-JPS.
  - e. Official map showing prohibited locations as defined by this chapter.
4. Authority. The village board has authority under Wis. Stats. §61.34 to enact ordinances promoting the health, safety, and welfare of the public.
5. Residence and safety restrictions for designated offenders. The state statutes govern the punishment of individuals who commit sex crimes, and the village has no authority or intent to intervene in either area. The village recognizes statutory residency restrictions and the limited exemptions enumerated in Wis. Stats. §980.135 for sex offenders released pursuant to Wis. Stats. §908.08. Nothing in this ordinance should be construed to apply to an offender currently in compliance with all court orders issued under Wis. Stats. §980 or to a person providing housing to the offender in compliance with those court orders.

#### (b) Findings and Intent.

1. Repeat sexual offenders, sexual offenders who use physical violence, and sexual offenders who prey on children are sexual predators who present an extreme threat to public safety. Sexual offenders are extremely likely to use physical violence and to repeat their offenses; and most sexual offenders commit many offenses, have many more victims than are ever reported, and are prosecuted for only a fraction of their crimes. This makes the cost of sexual offender victimization to society at large, while incalculable, clearly exorbitant.
2. This chapter is a regulatory measure aimed at protecting the health and safety of children in the village from the risk that convicted sex offenders may reoffend in locations close to their residences. The village finds and declares that repeat sexual offenders who use physical violence and sexual offenders who prey on children, are sexual offenders who present an extreme threat to the public safety and the health of children. Sexual offenders are extremely likely to use physical violence and to repeat

their offenses; and most sexual offenders commit many offenses, have many more victims than are ever reported, and are prosecuted for only a fraction of their crimes. This makes the cost of sexual offender victimization to society at large and the community where they reside, while incalculable, clearly exorbitant. It is further believed that such persons present an alarmingly high risk of re-offending once released. As such, the village hereby establishes regulations which restrict certain offenders from residing or congregating in areas that are at or near where there is a high concentration of children in order to provide better protection for children in the city by minimizing immediate access and proximity to children and thereby reducing opportunity and temptation for recidivism.

3. It is not the intent of the village board to punish sex offenders, but rather to serve the village's compelling interest to promote, protect and improve the health, safety and welfare of the citizens of the village by creating areas around locations where children regularly congregate in concentrated numbers, wherein, certain sexual offenders are prohibited from establishing temporary or permanent residence. Due to the high rate of recidivism for sexual offenders, and because reducing both opportunity and temptation would help minimize the risk of re-offense, there is a compelling need to protect children where they congregate or play in public places.

(c) Definitions. The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except when the context clearly indicates a different meaning:

"Child" or "children" means a person under the age of eighteen (18) for purposes of this chapter.

"Designated offender" means any person who is required to register under Section 301.45, Wisconsin Statutes. This definition does not include a person who is released under Section 980.08, Wisconsin Statutes, so long as the person is subject to supervised release under Chapter 980, Wisconsin Statutes, the person is residing where he or she is ordered to reside under Section 980.08, Wisconsin Statutes, and the individual is in compliance with all court orders issued under Chapter 980, Wisconsin Statutes.

"Loitering" means, whether in a group, crowd, or as an individual, to stand idly about, loaf, prowl, congregate, wander, stand, linger aimlessly, proceed slowly or with many stops, to delay or dawdle.

"Minor" means a person under the age of seventeen (17).

"Permanent residence" means a place where the person abides, lodges, or resides for fourteen (14) or more consecutive days.

"Protected location" means any athletic fields, day care center, library, park, private places, playground, recreational trail, school property, and swimming pool, or any other place designated in the map adopted by the village under this section as a place where children are known to congregate. The defined terms included in the definition of protected location are:

1. "Athletic fields" means fields used by children for organized sporting activities. This definition includes all public athletic fields and private athletic fields if they are open to the public.
2. "Day care center" means a facility that has been licensed under Section 48.65, Wisconsin Statutes, to provide care and supervision of children and includes "before- and after-school daycare," which has the meaning as defined by Section 120.125(1), Wisconsin Statutes.
3. "Library" means any library that is held open for use by the public where such library includes a collection of material specifically intended for use by children.
4. "Park" means any area held open for use by the public for active or passive leisure purposes, including, but not limited to, any park, recreation area or beach. "Park" shall also mean any privately owned neighborhood parks and open spaces where children congregate such as those owned by a homeowners association of a subdivision.
5. "Playground" means any public outdoor area set aside for recreation and play and includes any area with playground equipment including, but not limited to, swings, slides, sandboxes, and seesaws.
6. "Private places" means a property owned by a private person or entity but open to the public to provide a service and where children regularly congregate, whether supervised or unsupervised. For example, and to show the intent of this definition: the facility named St. Mary's Church playground.
7. "School property" means any public school as defined by Section 115.01(1), Wisconsin Statutes; a private school as defined by Section 115.001(3), Wisconsin Statutes; a charter school as defined by

Section 115.001(1), Wisconsin Statutes; a specialty school, including, but not limited to, a Montessori school, a gymnastics academy, dance academy, or music school.

8. "Swimming pool" means where children swim or wade in a pool or other aquatic facility held open for use by the public or where no lifeguard is on duty and children are known to congregate.
9. "Recreational trail" means a trail where children regularly walk, ride bicycles, or ride horses, and that is dedicated to the public for recreational purposes.

"Temporary residence" means a place where the person abides, lodges, or resides for a period of fourteen (14) or more days in the aggregate during any calendar year and which is not the person's permanent address or a place where the person routinely abides, lodges, or resides for a period of four or more consecutive or nonconsecutive days in any month and which is not the person's permanent residence.

(d) Sexual Offender and Sexual Predator Residency, Loitering and Other Activities, Prohibitions; Penalties; Exceptions.

1. Prohibited Location of Residence. It is unlawful for any designated offender to establish a permanent residence or temporary residence within three hundred fifty (350) feet of any protected location.
2. Prohibited Activity.
  - a. Loitering. It is unlawful for any designated offender to loiter within three hundred fifty (350) feet of any protected location.
  - b. Holiday Parties. It is unlawful for any designated offender to participate in a holiday event involving children under eighteen (18) years of age, such as but not limited to distributing candy or other items to children on Halloween, wearing a Santa Claus costume or wearing an Easter Bunny costume or any costume resembling a character known to be popular among children. Holiday events in which the offender is the parent or guardian of the children involved, and no non-familial children are present, are exempt from this paragraph. Participation is to be defined as actively taking part in the event.
3. Measurement of Distance.
  - a. For purposes of determining the minimum distance separation, the requirement shall be measured by following a straight line from the outer property line of the permanent residence or temporary residence to nearest outer property line of a protected location.
  - b. The city clerk shall maintain an official map showing prohibited locations as defined by this chapter. The clerk shall update the map at least annually to reflect any changes in the location of prohibited zones. These shall be designated on the map as child safety zones.
4. Penalties. A person who violates this section shall be punished by a forfeiture not exceeding five hundred dollars (\$500.00) together with the costs of prosecution. Each day a person violates this chapter constitutes a separate violation. The village may also seek equitable relief. The village may also bring an action to permanently enjoin such residency as a public nuisance.
5. Exceptions. A designated offender residing within a prohibited area as described in subsection (e)(1) does not commit a violation of this section if any of the following applies:
  - a. The person established the permanent residence and reported and registered the residence pursuant to Section 301.45, Wisconsin Statutes, before the effective date of this chapter.
  - b. The person is a minor and is not required to register under Section 301.45 or 301.46, Wisconsin Statutes.
  - c. The protected location within three hundred fifty (350) feet of the person's permanent residence was opened after the person established the permanent residence and reported and registered the residence pursuant to Section 301.45, Wisconsin Statutes.
  - d. The residence is also the primary residence of the person's spouse or domestic partner provided that such spouse or domestic partner established the residence at least one year before the designated offender established residence at the location.

- e. In such cases involving a juvenile placed in accordance with this exception, when the juvenile turns eighteen (18) years of age, the juvenile would be allowed to continue to reside at the already established residence.
  - f. The person is a designated offender that has been adjudicated a sexually violent person pursuant to Chapter 980, Wisconsin Statutes, if the designated offender is subject to supervised release under Chapter 980, Wisconsin Statutes, the designated offender is residing where he or she is ordered to reside under Section 980.08, Wisconsin Statutes, and the sex offender is in compliance with all court orders issued under Chapter 980, Wisconsin Statutes.
- (e). Property Owners Prohibited from Renting Real Property to Certain Sexual Offenders and Sexual Predators; Penalties.
- 1. It is unlawful to let or rent any place, structure, or part thereof, trailer or other conveyance, with the knowledge that it will be used as a permanent residence or temporary residence by any person prohibited from establishing such permanent residence or temporary residence pursuant to this chapter, if such place, structure, or part thereof, trailer or other conveyance, is within three hundred fifty (350) feet of any protected location.
  - 2. A property owner's failure to comply with provision of this section shall constitute a violation of this section and shall subject the property owner to the penalties provided in subsection (d)(4).
- (f). Appeal.
- 1. A designated offender may seek an exemption from this Chapter 16-12 by appealing to the village board.
  - 2. The board shall approve of an official appeal form. An offender shall complete this official form and submit it to the village clerk, who shall forward it to the village board. Notice in the form of an agenda shall be posted and/or published as required by law and provided to the board, the property owner if not the applicant, and published on the village's website at least seven days prior to the hearing date.
  - 3. The village board shall hold a hearing on each appeal to conduct an individual risk assessment in each case, during which the board may review any pertinent information and may accept oral and written statements from any person. The board shall consider the public interest as well as the applicant's presentation and concerns, giving the applicant a reasonable opportunity to be heard. The board shall also consider any oral, emailed, and written statements from any person at the hearing or received in advance of the hearing. The board shall consider the specific facts and circumstances of each applicant and determine whether the applicant presents a threat to public safety if he or she resides at that proposed location. The board shall consider factors which may include, but are not limited to, the following:
    - a. Circumstances surrounding the offense.
    - b. Relationship of offender and victim.
    - c. Presence or use of force.
    - d. Presence of enticement.
    - e. Need to protect victim or similarly situated individuals.
    - f. Current dangerousness of the offender.
    - g. Proximity in time from original offense.
    - h. Any criminal offenses or rule violations committed since original offense.
    - i. Time out of incarceration.
    - j. Current supervision status by the department of corrections.
    - k. Counseling and treatment history.
    - l. Credibility of offender.
    - m. Remorse.
    - n. Proximity of proposed residence to a child safety zone.
    - o. Support network of offender near proposed residence.
    - p. Alternative options for housing.

4. The board shall decide by majority vote whether to grant or deny an exemption. An exemption may be unconditional or be conditional to a certain address or period of time. In the case of an approval or denial, the board shall provide a written copy of the decision containing the reasons therein for its decision to the Dodge County Sheriff's Office and Village Clerk and to the applicant. The decision of the board may be appealed to the Dodge County Circuit Court by any aggrieved party within 30 days of receipt of the final decision. The review shall be a review by certiorari and the circuit court may affirm or reverse the final decision, or remand to the decision maker for further proceedings consistent with the court's decision.
- (g). Severability. The provisions of this chapter shall be deemed severable and it is expressly declared that the village board would have passed the other provisions of this chapter irrespective of whether or not one or more provisions may be declared invalid. If any provisions of this chapter or the application to any person or circumstance is held invalid, the remainder of the chapter or the application of such other provisions to other persons or circumstances shall not be affected.
- (h) Map. The map displaying areas of the Village in which offenders may reside is available for examination at the Clerk's office. <https://diamondMaps.com/map.ashx?key=6770250403142127890>

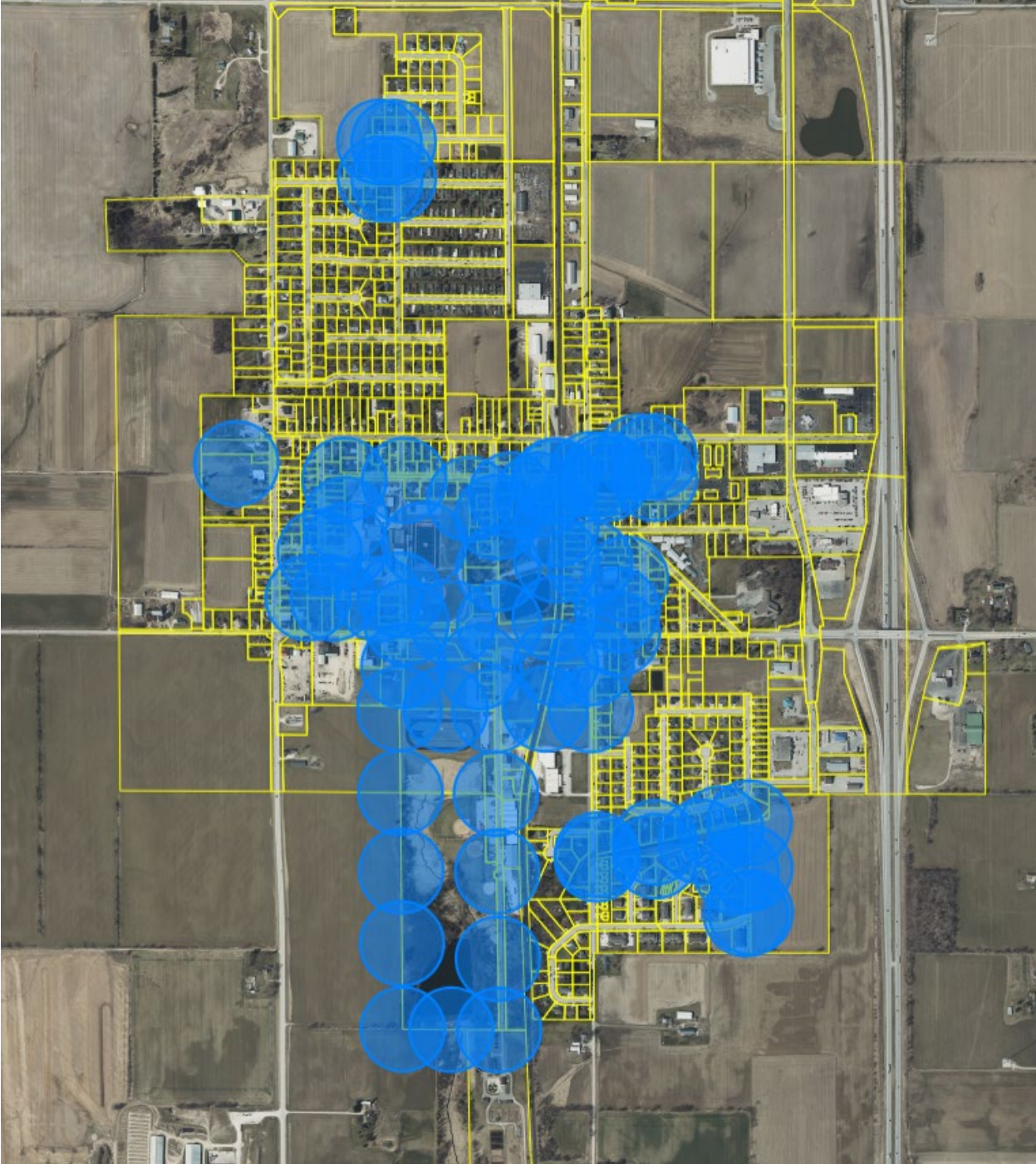
Motion by Tr. \_\_\_\_\_, seconded by Tr. \_\_\_\_\_  
To adopt Ordinance #371 this \_\_\_\_ day of \_\_\_\_\_, 2025.

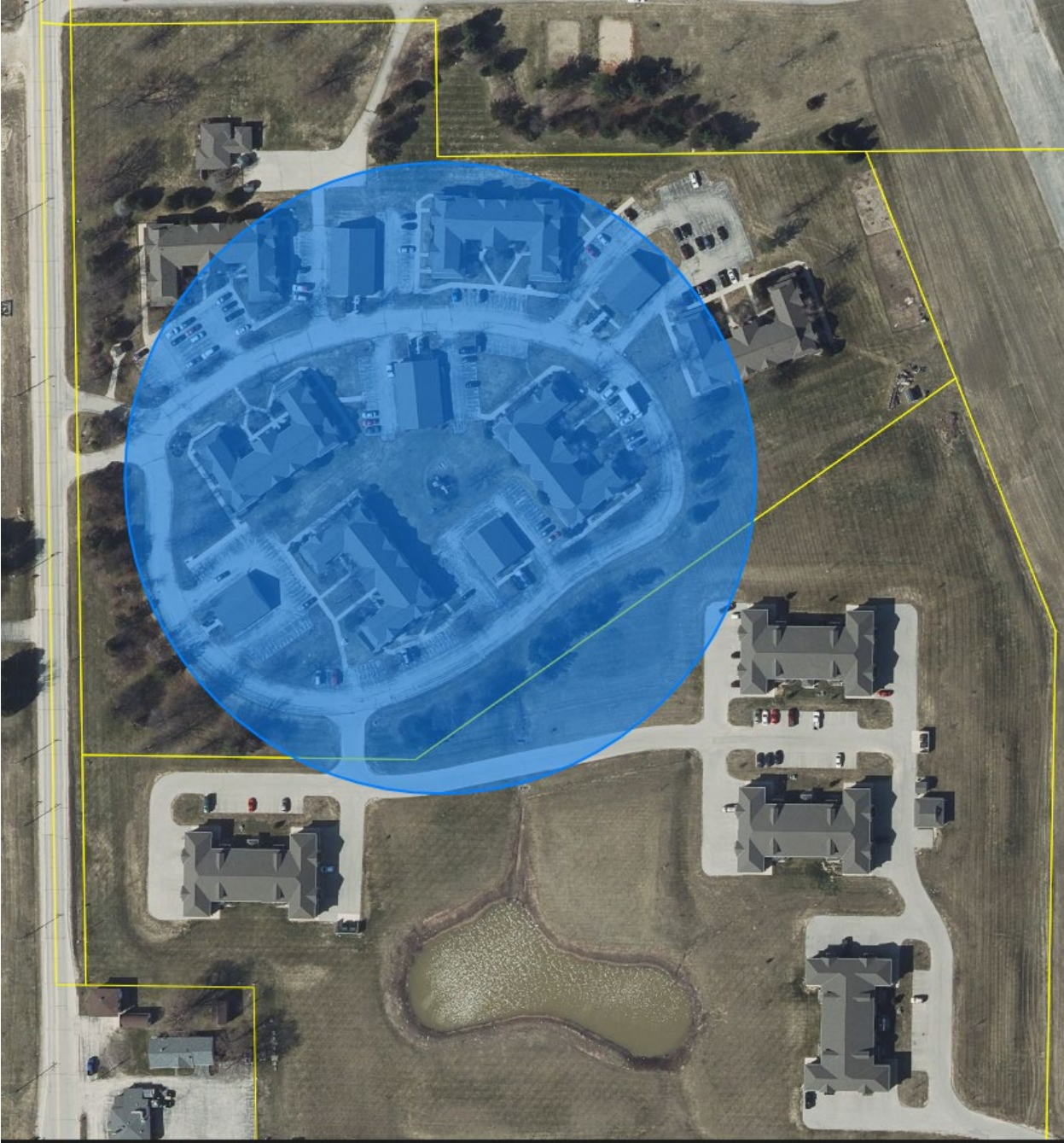
Ayes: \_\_\_\_\_

Nay: \_\_\_\_\_ Absent: \_\_\_\_\_

Signed: \_\_\_\_\_  
Donald Luedtke, President

Attest: \_\_\_\_\_  
Jenna Rhein, A-C-T





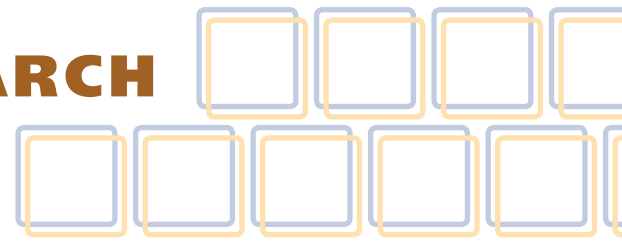




# SOMAPI RESEARCH BRIEF

SEX OFFENDER MANAGEMENT ASSESSMENT AND PLANNING INITIATIVE

Luis C.deBaca, Director • July 2015



## Recidivism of Adult Sexual Offenders

by Roger Przybylski

### Introduction

Recidivism has long been a concern of criminal justice practitioners and policymakers, but has received renewed attention in recent years due to the record number of convicted offenders living in our communities.<sup>1</sup> Research has demonstrated that repeat offenders account for a disproportionate amount of crime, and there is widespread recognition today that recidivism reduction should be a key goal of the criminal justice system.

This Research Brief reviews the scientific literature concerning the recidivism of adult sex offenders. It presents findings about recidivism generally and sexual recidivism specifically because many sex offenders engage in both sexual and nonsexual crime. It also addresses the recidivism rates of different types of sex offenders.

### Summary of Research Findings

The recidivism of sex offenders is difficult to measure. The surreptitious nature of sex crimes, the fact that few sexual offenses are reported to authorities, and the variation in the ways researchers calculate recidivism rates all contribute to the problem.

Research has clearly shown that many sex offenses are never reported to authorities, and several studies have shown that the likelihood that a sexual assault will be reported to law enforcement decreases with the victim's age.<sup>2</sup> In addition, only a subset of sex offenses that are reported to law enforcement result in the arrest of the perpetrator. Given these dynamics, there is widespread recognition that the officially recorded recidivism rates of sexual offenders are a diluted measure of reoffending.

### About SOMAPI

In 2011, the SMART Office began work on the Sex Offender Management Assessment and Planning Initiative (SOMAPI), a project designed to assess the state of research and practice in sex offender management. As part of the effort, the SMART Office contracted with the National Criminal Justice Association (NCJA) and a team of subject-matter experts to review the literature on sexual offending and sex offender management and develop summaries of the research for dissemination to the field. These summaries are available online at <http://smart.gov/SOMAPI/index.html>.

A national inventory of sex offender management professionals also was conducted in 2011 to gain insight about promising practices and pressing needs in the field. Finally, a Discussion Forum involving national experts was held in 2012 for the purpose of reviewing the research summaries and inventory results and refining what is currently known about sex offender management.

Based on the work carried out under SOMAPI, the SMART Office has published a series of Research Briefs, each focusing on a topic covered in the sexual offending and sex offender management literature review. Each brief is designed to get key findings from the literature review into the hands of policymakers and practitioners. Overall, the briefs are intended to advance the ongoing dialogue related to effective interventions for sexual offenders and provide policymakers and practitioners with trustworthy, up-to-date information they can use to identify what works to combat sexual offending and prevent sexual victimization.



It is also important to recognize that recidivism rates are often measured differently from one study to the next. Different ways of measuring recidivism rates can produce substantially different results, and comparing rates that were derived in different ways can lead to inaccurate conclusions. Some of the most common ways in which measurement variation occurs in recidivism research are—

- Variation in the way researchers operationally define recidivism.
- Variation in the length of the followup period.
- Differences in the populations being studied.

## Recidivism Rates for All Sex Offenders

Perhaps the largest single study of sex offender recidivism to date was carried out by Langan, Schmitt, and Durose (2003). The study examined the recidivism patterns of 9,691 male sex offenders released from prisons in 15 states in 1994.<sup>3</sup> The researchers found a sexual recidivism rate of 5.3 percent for the entire sample of sex offenders, based on an arrest during the 3-year followup period. The violent and overall arrest recidivism rates for the entire sample were much higher: 17.1 percent and 43 percent, respectively. Nearly 4 out of every 10 (38.6 percent) sex offenders in the study were returned to prison within 3 years of their release due to the commission of a new crime or a technical violation of their release conditions.

As part of their study, Langan, Schmitt, and Durose (2003) conducted a comparative analysis of sex-offender and non-sex-offender recidivism. They found that the sex offenders in the study had a lower *overall* rearrest rate than non-sex offenders (43 percent compared to 68 percent), but their *sex crime* rearrest rate was four times higher than the rate for non-sex offenders (5.3 percent compared to 1.3 percent).

Another important recidivism study was conducted by Sample and Bray (2003). The researchers examined the arrest recidivism of 146,918 offenders who were originally arrested in Illinois in 1990. Arrestees categorized as sex offenders (based on their most serious charge in 1990 being a sex offense) had 1-year, 3-year, and 5-year rearrest rates for a new sexual offense of 2.2 percent, 4.8 percent, and 6.5 percent, respectively.<sup>4</sup> Sex offenders in the study had 1-year, 3-year, and 5-year rearrest rates for any new offense of 21.3 percent, 37.4 percent, and 45.1 percent, respectively.

In a meta-analysis involving 10 different studies, Harris and Hanson (2004) generated recidivism estimates based on new charges or convictions for sexual offenses, using 5-, 10-, and 15-year followup periods for several categories of sex offenders.<sup>5</sup> The sexual recidivism estimates for all sex offenders in the study were 14 percent at 5 years, 20 percent at 10 years, and 24 percent at 15 years. An important finding that emerged from the analysis was that the 15-year sexual recidivism rate for offenders who already had a prior conviction for a sexual offense was nearly twice that for first-time sex offenders (37 percent compared to 19 percent). Another important finding was that the rate of reoffending decreased the longer offenders had been offense-free. Whereas 14 percent of the offenders in the analysis were sexual recidivists after 5 years of followup, only 7 percent of the offenders who were offense-free at that time sexually recidivated during the next 5 years of followup.

## Recidivism Rates for Rapists

Researchers studying the recidivism of sex offenders are increasingly reporting recidivism rates specifically for rapists. Langan, Schmitt, and Durose (2003), for example, found that 5 percent of the 3,115 rapists<sup>6</sup> in their study were arrested for a new sex offense during the 3-year followup period, 18.7 percent were arrested for a violent crime, and 46 percent were arrested for any crime. Rapists in the study with more than one prior arrest were rearrested at a rate nearly double (49.6 percent compared to 28.3 percent) that of rapists with just one prior arrest. Harris and Hanson (2004) reported sexual recidivism estimates for rapists (based on new charges or convictions) of 14 percent at 5-year followup, 21 percent at 10 years, and 24 percent at 15 years.<sup>7</sup> Another study, noteworthy because of its 25-year followup period, was conducted by Prentky and colleagues (1997). Generalizing some of the study's findings to offenders who engage in rape behavior today is problematic because the study period began in 1959 and ended in 1985, and sex offender treatment and management practices were far different then than they are today. In addition, the study sample was small (136 rapists), and it consisted of individuals who were determined to be sexually dangerous and who were civilly committed. Nevertheless, it is worth noting that Prentky and colleagues found that some rapists remained at risk to reoffend long after their discharge. Based on the 25-year followup period, the researchers



found a sexual recidivism rate of 39 percent and a recidivism rate for any charge of 74 percent.

### Recidivism Rates for Child Molesters

A relatively large body of research exists on the recidivism rates of child molesters. The study of sex offenders released from state prisons in 1994, by Langan and colleagues (2003), included a large sample (N = 4,295) of child molesters. The researchers reported that 5.1 percent of the child molesters in the study were rearrested for a new sex crime within 3 years of their release, 14.1 percent were rearrested for a violent crime, and 39.4 percent were rearrested for a crime of any kind. Similar to the pattern for rapists, child molesters with more than one prior arrest had an overall recidivism rate nearly double (44.3 percent compared to 23.3 percent) that of child molesters with only one prior arrest. As might be expected, child molesters were more likely than any other type of offender—sexual or nonsexual—to be arrested for a sex a *crime against a child* following release from prison.

Harris and Hanson (2004) documented differential rates of recidivism for different types of child molesters. Table 1 presents the study’s recidivism estimates (based on new charges or convictions) for 5-year, 10-year, and 15-year followup periods for boy-victim child molesters, girl-victim child molesters, and incest offenders.

Prentky and his colleagues (1997) also examined the recidivism of child molesters. Based on a 25-year followup period, the researchers found a sexual recidivism rate of 52 percent (defined as those charged with a subsequent sexual offense) using a sample of 115 child molesters who were discharged from civil commitment in Massachusetts between 1960 and 1984. While the difference between the 52 percent sexual recidivism rate found by Prentky and colleagues (1997) using a 25-year followup period and the 23 percent rate

found by Harris and Hanson (2004) using a 15-year follow period is striking, it can be interpreted in different ways. One interpretation is that first-time recidivism may occur for some child molesters 20 or more years after criminal justice intervention, and that recidivism estimates based on shorter followup periods are likely to underestimate the lifetime risk of child molester reoffending (Doren, 1998). An alternative interpretation is that the difference is primarily an artifact of sampling, as Harris and Hanson’s findings are based on a larger, more diverse sample of child molesters, including some serving community sentences, and the lifetime prevalence of sexual recidivism for child molesters is lower than the 52 percent suggested by Doren and is based, at least in part, on the Prentky et al. (1997) findings.

### Recidivism Rates for Exhibitionists

A limited body of research exists on the recidivism rates of exhibitionists. The findings and characteristics of three relevant studies are reported in table 2 on page 4.

### Comparative Recidivism Rates of Female and Male Sex Offenders

Research demonstrates that female sex offenders reoffend at significantly lower rates than male sex offenders. Based on a study of 380 female sex offenders, Cortoni and Hanson (2005) found average sexual, violent, and overall recidivisms rates for female sex offenders of 1 percent, 6.3 percent, and 20.2 percent respectively, after an average follow-up period of 5 years.<sup>8</sup> More recently, a meta-analysis of 10 studies involving a combined sample of 2,490 female sex offenders found an average sexual recidivism rate of about 3 percent for female sex offenders, based on an average followup period of 6.5 years<sup>9</sup> (Cortoni, Hanson, & Coache, 2010).<sup>10</sup>

**TABLE 1. SEXUAL RECIDIVISM RATES (BASED ON NEW CHARGES OR CONVICTIONS) AT 5-YEAR, 10-YEAR, AND 15-YEAR FOLLOWUP FOR BOY-VICTIM CHILD MOLESTERS, GIRL-VICTIM CHILD MOLESTERS, AND INCEST OFFENDERS**

	5 years		10 years		15 years	
	N	Percent	N	Percent	N	Percent
Any type (one or more)	315	23.0	105	27.8	95	35.4
Sexual assault	766	9.2	218	13.1	208	16.3
Sexual coercion	416	6.4	73	9.4	69	13.2

Source: Harris and Hanson (2004).



**TABLE 2. RECIDIVISM RATES FOR EXHIBITIONISTS**

Study	Sample	Followup Period	Recidivism Findings		
Sugarman et al. (1994)	210 exhibitionists	17 years	32% based on conviction for a contact sexual offense	75% based on conviction for any type of crime other than exposing	
Rabinowitz-Greenberg et al. (2002)	221 exhibitionists, assessed 1983–1996	6.8 years (average)	11.7% based on new sexual charge or conviction	16.8% based on new violent charge or conviction	32.7% based on any new charge or conviction
Firestone et al. (2006)	221 exhibitionists, assessed 1983–1996	13.2 years	23.6% based on new sexual charge or conviction	31.3% based on new violent charge or conviction	8.9% based on any new charge or conviction

## Research Limitations and Future Needs

A sound foundation of knowledge on the extent of sex offender recidivism has been produced in recent years, but significant knowledge gaps remain. Variations across studies in the operational definition of recidivism, the length of the followup period employed, and other measurement factors continue to make it difficult to make cross-study comparisons of observed recidivism rates. Studies that produce more readily comparable findings are greatly needed, as are those that employ followup periods longer than 5 years. Analyses are also needed that standardize the time at risk for all offenders in a given study using survival analysis. Future research should also attempt to build a stronger evidence base on the differential recidivism patterns of different types of sex offenders, particularly the recidivism patterns of crossover offenders.

## Conclusions and Policy Implications

Studies clearly demonstrate that the actual reoffending rates of sexual offenders are poorly reflected in official records. The magnitude of the difference between observed and actual reoffending needs to be better understood, and there is universal agreement in the scientific community that the observed recidivism rates of sex offenders are underestimates of actual reoffending.

**The observed sexual recidivism rates of sex offenders range from about 5 percent after 3 years to about 24 percent after 15 years.** Relatively low rates of recidivism

particularly sexual recidivism—are reported in studies using followup periods shorter than 5 years. Langan and colleagues (2003), for example, found a sexual recidivism rate of 5.3 percent, using a 3-year followup period for a large sample of sex offenders released from prison in 1994. Studies employing longer followup periods consistently report higher rates of recidivism. Harris and Hanson (2004), for example, reported a sexual recidivism rate of 24 percent for a sample of sex offenders, based on a 15-year followup period. Although observed recidivism rates will naturally increase as the length of the followup period increases, it is important to recognize that recidivism rates derived from followup periods of 5 years or less may mislabel a considerable proportion of repeat offenders as nonrecidivists.

**Sex offenders—regardless of type—have higher rates of general recidivism than sexual recidivism.** Although this basic reoffending pattern would naturally be expected to occur, the magnitude of the difference found in research is somewhat striking. It suggests that sex offenders are far more likely to reoffend for a nonsexual crime than a sexual crime and, as Hanson and Morton-Bourgon (2004, p. 4) have aptly stated, “policies aimed at public protection should also be concerned with the likelihood of any form of serious recidivism, not just sexual recidivism.”

**Sex offenders have lower rates of general recidivism but higher rates of sexual recidivism than non-sex offenders.** Research comparing the recidivism rates of sex offenders with those of non-sex offenders consistently finds that sex offenders have lower overall recidivism rates than non-sex offenders. Child molesters, rapists, and sex offenders overall, however, are far more likely than non-sex offenders to recidivate sexually.



**Different types of sex offenders have markedly different rates of recidivism.** The empirical evidence clearly demonstrates that different types of sex offenders have a different propensity to reoffend. Research that examines the recidivism of rapists and child molesters indicates that the highest observed recidivism rates are found among child molesters who offend against boys. Comparatively lower recidivism rates are found for rapists, child molesters who victimize girls, and incest offenders. This suggests that different recidivism-reduction policies and practices are needed for different types of sex offenders.

**Female sex offenders have lower rates of recidivism than male sex offenders.** Five- to six-year rates of sexual recidivism for female sex offenders may be as low as 1 to 3 percent. The differential recidivism rates of female and male sex offenders suggests that intervention and management practices need to differentiate between female and male sex offenders, and that procedures for assessing risk that were developed for male sex offenders are unlikely to be accurate when applied to female sex offenders (Cortoni, Hanson, & Coache, 2010).<sup>11</sup>

## Notes

1. This includes offenders returning to the community upon release from incarceration as well as offenders who are serving or who have been discharged from community-based sentences.
2. See, for example, Kilpatrick, Saunders, and Smith (2003) and Sorenson and Snow (1991). See Pipe et al. (2007) for more information about childhood disclosure of sexual abuse.
3. These offenders accounted for about two-thirds of all male sex offenders released from state prisons in the United States that year.
4. Sample and Bray (2003) did not report the number of 1990 arrestees who were categorized as sex offenders.
5. All of the sex offenders in the analysis were released from correctional institutions, except for 202 Canadian sex offenders who were placed on probation and 287 sex offenders in Washington state who received community-based sentences.
6. The study conducted by Langan and colleagues (2003) separated “violent sex crimes” into two categories: “rape” and “other sexual assault.” The term “rapist” was used to refer to a released sex offender

whose imprisonment offense was defined by state law as forcible intercourse with a female or male. The “rape” category excluded statutory rape or any other nonforcible sexual act with a minor or with someone unable to give legal or factual consent. Sex offenders whose imprisonment offense was a violent sex crime that could not be positively identified as “rape” were placed in the “sexual assault” category. The 3-year recidivism rates reported for the 6,576 sex offenders categorized as sexual assaulters were as follows: 5.5 percent were rearrested for a new sex crime, 16.4 percent were rearrested for a violent crime, and 41.5 percent were rearrested for a crime of any kind.

7. The 5-year recidivism rate estimate is based on 514 offenders, the 10-year estimate is based on 261 offenders, and the 15-year estimate is based on 157 offenders.

8. The definition of recidivism varied widely, ranging from arrests to convictions to reports provided by probation officers.

9. As a comparison, the researchers reported a sexual recidivism rate of 13.7 percent for male sex offenders, based on an average followup period of 5.5 years. The average sexual recidivism rate reported for male sex offenders was derived from a previous meta-analysis (Hanson & Morton-Bourgon, 2004) of 84 studies involving 20,440 sex offenders, the majority of whom were males. Hanson and Morton-Bourgon (2004) reported that 1 of the 84 studies in the meta-analysis focused on female sex offenders. Based on the sample size reported in that study of female offenders, fewer than 100 of the 20,440 sex offenders in the Hanson and Morton-Bourgon (2004) meta-analysis were female.

10. Recidivism was defined as an arrest, charge, conviction, or incarceration for a new offense.

11. Cortoni and Hanson (2005). *Recidivism Rates of Female Sexual Offenders*. Research Summary, Vol. 11, No. 3. Ottawa, Ontario, Canada: Public Safety Canada. Retrieved from <http://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/rcvdsfm-fmlfndrs/index-eng.aspx>.

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#### ABOUT SMART

The Adam Walsh Child Protection and Safety Act of 2006 authorized the establishment of the Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART) Office within OJP. SMART is responsible for assisting with implementation of the Sex Offender Registration and Notification Act (SORNA), and also for providing assistance to criminal justice professionals across the entire spectrum of sex offender management activities needed to ensure public safety.

NBER WORKING PAPER SERIES

THERE GOES THE NEIGHBORHOOD? ESTIMATES OF THE  
IMPACT OF CRIME RISK ON PROPERTY VALUES FROM  
MEGAN'S LAWS

Leigh L. Linden  
Jonah E. Rockoff

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There Goes the Neighborhood? Estimates of the Impact of Crime Risk on Property Values From Megan's Laws

Leigh L. Linden and Jonah E. Rockoff

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### **ABSTRACT**

We combine data from the housing market with data from the North Carolina Sex Offender Registry to estimate how individuals value living in close proximity to a convicted criminal. We use the exact location of these offenders to exploit variation in the threat of crime within small homogenous groupings of homes, and we use the timing of sex offenders' arrivals to control for baseline property values in the area. We find statistically and economically significant negative effects of sex offenders' locations that are extremely localized. Houses within a one-tenth mile area around the home of a sex offender fall by four percent on average (about \$5,500) while those further away show no decline. These results suggest that individuals have a significant distaste for living in close proximity to a known sex offender. Using data on crimes committed by sexual offenders against neighbors, we estimate costs to victims of sexual offenses under the assumptions that all of the decline in property value is due to increased crime risk and that neighbors' perceptions of risk are in line with objective data. We estimate victimization costs of over \$1 million—far in excess of estimates taken from the criminal justice literature. However, we cannot reject the alternative hypotheses that individuals overestimate the risk posed by offenders or view living near an offender as having costs exclusive of crime risk.

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## **1. Introduction**

Crime is predominantly a local issue. The majority of both violent and non-violent offenses take place less than one mile from victims' homes, and most government expenditures on police protection are local (Bureau of Justice Statistics, 2004, and Census of Governments, 2003). In response to the fear of crime, residents generally have two options: they can vote for anti-crime policies, or they can vote with their feet. When individuals exercise the latter option, local response to crime will be observed in the housing market. This may be particularly salient for crime, since individuals can reduce their exposure without moving great distances, and empirical evidence on urban flight supports this notion (Cullen and Levitt, 1999).

To decide how to respond to crime, we must understand the costs that crime imposes on individuals. Estimates of the demand for public safety, for example, are necessary to determine the appropriate level of public expenditures, such as the optimal provision of police services. But many jurisdictions are also considering various regulatory options for individuals deemed likely to commit specific crimes. Sex offenders, for example, have been a particular target. Offenders may be restricted from living in close proximity to areas with significant numbers of children. A small number of local governments and real estate developers in the U.S. have begun considering rules designed to restrict the ability of sexual offenders to reside in their communities. And in some states, property sellers are required to notify potential buyers of local offenders.

Historically, information about an individuals' future risk for being victimized by a criminal was limited to crime statistics for specific geographic locations. A number of papers have documented an inverse relationship between property values and crime rates.

In one of the earliest studies, Thaler (1978) finds a negative relation between property crimes per capita and property values. His estimates imply that a one standard deviation increase in the incidence of property crime reduces home values by about 3%. A more recent study by Gibbons (2004) finds a decrease in property values of 10% for a one standard deviation increase in property crime.

These studies, however, face potential omitted variable problems in both cross sectional and time series. In the cross section, crime rates are likely to co-vary with other geographic amenities for which researchers cannot adequately control. Over time, crime rates may change as the composition and characteristics of neighborhoods change. Reductions in crime levels, for example, may correspond to other changes that increase the value of property located in a particular neighborhood.

In this paper, we combine data from the housing market with data from sex offender registrations to estimate individuals' valuation of living in close proximity to a convicted sex offender. By exploiting both the timing of move-in and the exact locations of sex offenders, we can improve on past estimates of individuals' responses. The exact location of these offenders then allows us to exploit variation in the threat of crime within small homogenous groupings of homes. The timing of a sex offender's arrival allows us to confirm the absence substantive pre-existing differences in property values and to control for the remaining minor differences.

Our study is the first to exploit both inter-temporal and cross-sectional variance in the presence of an offender, but not the first to exploit the cross-sectional variation alone. Larsen et al. (2003) examine the cross sectional relationship between property values and proximity to sex offenders using a single year of data from Montgomery County, Ohio.

They find a reduction in housing prices of 17% within a tenth of a mile of an offender's home, and find significant changes in price up to a third of a mile. Although their study is similar to ours in the empirical question it addresses, their empirical strategy suffers from the same potential biases mentioned above.

Sex offender registries are not simply an important source of data for research. The advent of sex offender registration laws and public access to offender registries has changed the kind of information available to individuals about their propensity for being victimized by a crime. Based on the belief that an individual convicted of a sex offense is likely to commit a similar crime in the future, these registries publish the names, addresses, and sometimes even the employers of convicted sex offenders. Thus, individuals can now find out not only historical crime rates, but also the number of specific types of criminals living in an area and, usually, their exact addresses.

Anecdotal evidence suggests that individuals are extremely averse to living in close proximity to convicted criminals and that they have put the information obtained from the offender registries to use. Neighbors have encouraged sex offenders to leave neighborhoods. Real estate broker associations provide information on sex offenders and the sex offender registry to their members. Law suits have been filed both against sex offenders for reducing property values and against appraisal agencies for not considering the proximity of local sex offenders. And a small, but growing number of localities have passed laws that would prevent sex offenders from living within their borders.

The results of our analysis suggest that these laws reflect a strong distaste for living in close proximity to an offender. Prices of homes near a sex offenders decline considerably following an offender's arrival in the neighborhood. We find that, on

average, the housing market reacts strongly to a sex offender living in a neighborhood. We estimate that the sale price of homes closest to the offender decline by about 10% in value or about \$10,000 for the median value home in our data. Roughly four percentage points of this decline is due to real decline in the value of homes located near offenders. The remaining decline is due to changes in the composition of sales due to the offender's arrival and neighborhood level changes in property values. However, these effects are extremely localized and dissipate quickly with distance. We find no evidence of any impact on homes located more than a tenth of a mile away from offenders' locations.

This paper is organized as follows. In the next section, we describe the nature of both the national and North Carolina sex offender registration laws. In Section 3, we describe the data used in our study, and then in Section 4, we describe our empirical methodology, present graphical evidence on the impact of sex offenders' arrivals, and describe the model we use for formal statistical analysis. We present our empirical results in Section 5. We conclude in Section 6.

## **2. Sex Offender Registration Data Bases**

In 1994, a seven year old girl named Megan Kanka was brutally raped and murdered by her next door neighbor. The man had been convicted in 1981 for an attack on a 5-year-old child and an attempted sexual assault on a 7-year-old, but none of his neighbors knew these facts. This tragic event was the motivation for the body of legislation known as Megan's Laws, requiring the notification of the public regarding the location and description of convicted sex offenders. By imposing requirements on a class of individuals previously convicted of a crime after they have completed their sentences,

these laws represent a significant change in the legal practice of dealing with convicted criminals after they have been released from prison.

At the Federal level, sex offender registration laws comprise two sets of state requirements. In 1994, the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Program created a mandatory state requirement for the registration of sex offenders.<sup>2</sup> Congress enforced the act by threatening states with a reduction of Federal grants provided for state law enforcement efforts. The registry must include a range of identifying information including the offenders' names, addresses, photographs, etc. The law applies to individuals convicted of committing a specific set of sexual offenses and non-sexual crimes against minors. Offenders are required to register this information with state authorities, update authorities regarding changes, and to verify periodically the accuracy of the currently provided information. Congress expanded this legislation in 1996 to require the dissemination of information in the registry.

Megan's Laws have been extremely controversial and subjected to numerous court challenges. Two such challenges reached the Supreme Court in 2003. The first, Connecticut Department of Public Safety et al. v. Doe, claimed that registration laws violated the due process clause of the 14th amendment by depriving registered sex offenders of a "liberty interest" and depriving them of a hearing to determine whether they posed to a significant danger. The second challenge, Smith et al. v. Doe, was brought on grounds that the registration laws violated the ex post facto clause in Article I of the Constitution by creating a retroactive punishment. In both cases, the Court has upheld the laws as a legitimate civil regulation (rather than a criminal punishment) in

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<sup>2</sup> 42 U.S.C. § 14071 (2000). Jacob Wetterling was abducted in Minnesota in 1989; neither he nor the perpetrators were ever found.

response to the recidivism threat imposed by sex offenders on the communities in which they live.

While federal law requires registration of offenders and community notification, states are given significant latitude in their implementation of these provisions. All 50 states currently maintain a registry which makes some information available to the public, but the method of compliance varies significantly. Forty-six states provide public internet access to the offender registry. Hawaii, South Dakota, and Oregon provide more limited access either only through local law enforcement agencies or only to small subsets of the data base. Rhode Island provides no public access to the database, but requires the notification of individuals likely to be at risk from a given offender. Individuals in many states can also request information by mail or through designated telephone numbers.

Louisiana has perhaps the most aggressive notification law. It requires offenders to, “give notice of the crime for which he was convicted, his name, and his address to at least one person in every residence or business within a one mile radius of his residence in a rural area and a *three tenths of a mile radius* in an urban or suburban area [italics added].” Louisiana courts can also require additional methods of notification including specially labeled clothing.

Despite the legal controversies surrounding their creation, searchable sex offender registries are extremely popular. In December of 2004, California unveiled a site that allowed residents to search the state’s registration database and obtain offenders names, addresses, and proximity to parks and schools. On the first day that the state made the

site publicly accessible, it was so popular that the host failed to keep up with demand. Within 4 days, the site had registered 14 million visits.

## **2.1 North Carolina Sex Offender Legislation**

The North Carolina sex offender registration law is similar to many of the registration laws that exist in other states. Originally, adopted in 1996 as the “Amy Jackson Law”, the law was amended in 1998 and 2001 to comply with the requirements of the federal registration laws.<sup>3</sup> All individuals convicted on or after January 1, 1996 of kidnapping, prostitution, sexual exploitation of a minor, or sexually violent offenses against anyone, are required to register. In addition, all sexual offenders released from prison on or after January 1, 1996 must register, even if their convictions took place prior to this date.<sup>4</sup> The law applies equally to individuals convicted in other states who move to North Carolina.

An individual with a reportable offense must register with the state within 10 days of being released from prison. If an individual moves, he or she must notify the state of their new address within 10 days. Failure to register an address is a felonious offense and cause for revocation of parole. Individuals are required to register for 10 years after being released from prison. In addition to these reporting requirements, the state is required to verify offenders’ addresses periodically. A non-forwardable post card is mailed to the individual, if this card is not returned with the current address, the

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<sup>3</sup> Article 27A of Chapter 14 of the North Carolina General Statutes (NCGS 14-208.5).

<sup>4</sup> The degree of retroactivity for States’ Megan’s laws varies considerably. In other (ongoing) work, one of us is examining how the discontinuity created by laws’ retroactivity can be used to measure the impact of sex offender registration on criminal activity.

individual is subject to criminal penalties and the local sheriff is required to verify whether or not the individual still resides at the registered address.

Information in the offender data base is provided to citizens via a web-based interface that is maintained by the State Bureau of Investigation's Division of Criminal Information. The registry reports each offender's current address, zip codes of past addresses, the offense of which the individual was convicted, a picture of the individual, and identifying information such as height, weight, race, gender, distinguishing characteristics, hair color, and eye color. All address entries include both the data on when the address was reported and if the address was verified, the date on which the address was last verified. To the best of our knowledge, North Carolina, Florida, and Montana are the only states that provide information on the exact timing of offenders' move-in dates.

Unlike other states, compliance with the sex offender registration laws is extremely high in North Carolina. Between January 1, 1996 and March 9, 2003, North Carolina released a total of 8,287 individuals that would be required to register. Of these offenders, 1,007 had moved out of state and of those remaining in the state, only 103 had failed or had yet to register their addresses. This contrasts with the experience of California, for example, whose registry was heavily criticized for missing addresses on a significant number of offenders.

### **3. Data Sources**

Our analysis of the impact of offenders' arrivals is based upon three sets of data regarding the location of sex offenders, the location and characteristics of property in



Mecklenburg County, and property level sales data. Information on registered sex offenders in North Carolina were provided by the North Carolina Department of Justice (NCDOJ).<sup>5</sup> This dataset contains information on offenders' basic demographics, type of offense, date of offense, current address, and date of registration at current address.<sup>6</sup> Because of the strict provisions governing timely registration in North Carolina, the date of registration is a close approximation of the actual date an offender moved to their current location.

In January of 2005, there were approximately 9,200 registered sex offenders in North Carolina, though 11% were registered as living in jail or a residence for ex-convicts and 4% had an unknown street address. In Mecklenburg County, where we focus, there were 518 registered offenders, the most of any county in the state.<sup>7</sup> 56 offenders (11%) were registered as living in a jail/halfway-house and 35 offenders (7%) had an unknown street address. We do not include these offenders in our analysis.

A variety of crimes qualify individuals to register their address under North Carolina's sexual offender registration law. Table 1 shows crime frequencies for registered offenders in the state and in Mecklenburg County. Almost 90% of all sexual offenses fall into three categories. The majority of all crimes—70% in the state, 63% in Mecklenburg County—are classified as Indecent Liberty with a Minor.<sup>8</sup> These crimes,

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<sup>5</sup> The registry is updated continually. Our source at the DOJ compiles a monthly data set that is provided to law enforcement agencies, of which October 2004 was the oldest file still available.

<sup>6</sup> We plan to use the historical ZIP code level data to examine the impact of the introduction of the sex offender registry in 1996. If the information provided by the registry was important and spread quickly, one might expect decreases in relative house prices in ZIP codes with more offenders after the registry's introduction. However, there are only 32 ZIP codes in Mecklenburg County, and we are therefore gathering sales data from other counties to pursue this line of investigation.

<sup>7</sup> Mecklenburg County contains the metropolitan area surrounding the city of Charlotte. This is the largest metropolitan area in the state (population 640,000).

<sup>8</sup> Indecent liberty refers to a person who, "1) Willfully takes or attempts to take any immoral, improper, or indecent liberties with any child of either sex under the age of 16 years for the purpose of arousing or

sometimes referred to as ‘child molestation,’ do not involve physical force or violence. The second most frequent set of crimes is sexual offenses (11% in the state and Mecklenburg County), which refer to sexual acts where force or violence is involved but do not include rape. Rape (9% in the state and 10% in Mecklenburg County) is the third largest category of crimes. The remaining crimes are spread among a variety of categories such as incest, prostitution of a minor, and kidnapping of a minor.

Because we only have access to offenders’ current addresses, we are only able to observe how variation in prices relates to offenders’ arrivals for offenders that have not yet moved from their current location. In order to have enough post-arrival sales to generate statistically meaningful estimates, we limit our analysis to offenders who have lived in the same location for one year or more. 10% of the offenders in Mecklenburg County were released less than one year before our sales data ends. Of those released prior to this date, roughly 35% had moved into their current address less than one year prior to the end of the sales data. We find similar results to those reported below when we include offenders who had been living in their current locations for at least six months.<sup>9</sup>

It is important to note that differences in sentence lengths affect the distribution of crimes for which registered offenders were convicted. The median sentence lengths for Indecent Liberty with a Minor and Rape are, respectively, 1 ⅓ years and 10 years. Thus, most offenders who committed Indecent Liberty with a Minor since 1996 will be

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gratifying sexual desire; or 2) Willfully commits or attempts to commit any lewd or lascivious act upon or with the body or any part or member of the body of any child of either sex under the age of 16 years.” (NC Statute 14 202.1).

<sup>9</sup> If offenders that move frequently would cause different changes in property values than offenders who choose to live in a single place for an extended period of time, our estimates might not be representative of the effects of the average sex offender moving into a neighborhood. Our analysis identifies the effects on property values of the sex offenders we observe in our data base.

registered, in contrast to a relatively small fraction of those who committed Rape or other crimes with long sentence lengths. Many of those in the latter group are likely to be in prison.

Our second source of data comes from the Mecklenburg County division of Property Assessment and Land Record Management. This assessment data contains Geographical Information Systems (GIS) information on all real estate parcels in the county as of March 21, 2005. With GIS information, we can measure the distance in feet between the centers of any two parcels. The assessment data also gives us a comprehensive set of physical characteristics for each parcel: type of structure, building quality, square footage, year of construction, number of bedrooms, number of bathrooms, etc.<sup>10</sup>

All parcels in the county are divided into 1004 “neighborhoods.” These neighborhoods are defined by the tax assessor’s office within Mecklenburg County and are intended to be sets of similarly valued properties. These neighborhoods are much smaller than census tracts (there were 144 tracts in Mecklenburg County in 1990) or even census block groups (there were 373 block groups in Mecklenburg County in 1990). Neighborhoods encompass just 0.47 square miles on average. The relative homogeneity of property within neighborhoods allows us to control for unobservable fixed and time varying characteristics at the neighborhood level.

In order to measure the proximity of property sales to offender locations, we matched offender addresses from the NCDOJ data to addresses in the assessment data. As

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<sup>10</sup> Building quality is measured on a thirty-six point scale. There are six tiers of quality ranging from “Below Average” to “Custom Made”. Within each tier there are 6 quality rankings (e.g. Below Average 1, Below Average 2...Below Average 6). Regressions of sale price on quality measures confirm the lexicographic nature of the ranking system.

mentioned above, there were 518 registered offenders in a numbered county as of January 1, 2005. From this population, we exclude 56 offenders who were registered as living in a jail/halfway-house, 35 offenders who had an unknown street address, and 29 offenders whose date of current residence was unknown. We were able to find a match with a parcel in the assessment data for the addresses of 367 (92%) of the remaining 398 offenders,<sup>11</sup> and 192 of these offenders moved before January 1, 2004.

Using the matched offender-assessment data, we flag all parcels within a three-tenths mile radius of each registered sex offender. Distances are calculated as a straight line radiating from the center of the tax parcel to the center of the parcel in which the registered offender resides. We chose 0.3 miles based on the Louisiana law requiring sex offenders to inform all neighbors living within this distance from their home of their presence in the neighborhood. In this way, each offender creates an “offender area” with size of about .28 (.09 $\pi$ ) square miles. For each parcel within an offender area, we also calculate the distance to the offender’s parcel. Note that the offender areas are smaller than the average size of neighborhoods designated in the assessment data. For those properties that have more than one offender within a 0.3 mile radius, we use the arrival date from the first offender to move into the area.<sup>12</sup>

Finally, the matched offender-assessment data is merged with property sales data from the Mecklenburg County Property Assessment and Land Record Management

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<sup>11</sup> 369 of these 373 matches were exact. The remaining four matched offenders claimed to be living at an address whose street number could not be matched with a parcel in the assessment data but whose street name, city, and ZIP code did match. For these offenders, we matched them to the “next closest” parcel on the street based on street numbers, so long as the street numbers seemed reasonably close. For example, an offender who claimed to live on “838 Everett Place” was matched to “836 Everett Place.” Of the remaining 25 offenders, 7 claimed to be living on streets that did not exist in the assessment data, and 18 claimed to live on street addresses that were not within a reasonable distance to a “next closest” parcel.

<sup>12</sup> Of the 367 offenders we successfully link to an address in GIS, 12 offenders were not the first to arrive within 0.3 miles of any parcel. An additional 21 offenders were in locations that did not have a sale of a single family home within 0.3 miles.

Office. This data includes all sales in Mecklenburg County from January 1994 to December 2004. We were able to match 96% of sales with an address in the assessment data. Though we cannot determine the reason why any particular sale did not match, we suspect that many of these are caused by sales of parcels that subsequently are changed or demolished so they do not exist in the assessment data from 2005. All sale prices are normalized to December 2004 dollars using the monthly South Urban CPI. We restrict our sample to sales of single-family homes and drop sales with prices in the range of \$5,000 to \$1 million. These cutoffs are approximately the 1<sup>st</sup> and 99<sup>th</sup> percentile of the sales price distribution. We also drop a small number of irregular sales entries, e.g., sales that took place less than 3 days following another sale of the same parcel. Parcels in which the registered offenders reside have also been dropped from the sample. This gives us a sample of 170,239 sales of 121,834 parcels, of which 27,529 lie within a 0.3 mile radius of a registered offender.

Table 2 provides summary statistics of the various parcels that are sold in Mecklenburg County during the period of interest. The first column provides information on all sales in the county and the second column shows the sales that occur within 0.3 miles of where a sex offender either has located or will eventually locate. This demonstrates the importance of the localized data we use in this analysis because the areas in which sex offenders locate have smaller houses that sell for less money. In other words, sex offenders, on average, move to the cheaper neighborhoods. Column three provides a hedonic decomposition of the log of the sale price of homes within 0.3 miles of an offender to gauge the importance of the various characteristics. The regression also

includes dummy variables for the composition of the house's exterior and offender area by year fixed effects.

#### **4. Empirical Methodology**

The purchase of a home is inextricably linked with the selection of a city, a school district, and a neighborhood. Thus, choice of residence represents choice of labor market, school quality, social group, environment, etc., in addition to choice of house characteristics. The demand for homes in areas with particular characteristics is therefore also a measure of individuals' preferences regarding all of the local factors that impact economic outcomes. A large number of studies have examined the relation between property values and location specific (dis)amenities, such as school quality, pollution, crime, and property taxes. Some recent examples are Black (1999), Colwell et al. (2000), Lynch and Rasmussen (2001), Bui and Mayer (2003), Davis (2004), Gibbons (2004), Figlio and Lucas (2004), and Chay and Greenstone (2005).

The difficulties in identifying the hedonic price function for local (dis)amenities are well-known. A major obstacle is that variation in the local amenity may be correlated with unobservable factors (Bartik, 1987, Epple, 1987). In addition, if the long-run supply of housing is perfectly elastic, then changes in demand for local property will, in equilibrium, show up in quantities, not prices (Edel and Sclar, 1974). Thus, an effective empirical strategy for uncovering capitalization might examine short run changes in property values due to arguably exogenous changes in local (dis)amenities.

Geographical heterogeneity in the average demographic characteristics of households makes it abundantly clear that particular kinds of people tend to live in

particular kinds of places. Sex offenders, like all individuals, likely choose to live in particular neighborhoods, depending on their income and preferences. Sex offenders do tend to move to areas that, on average, have lower property values. If we simply compared the average sale values of areas with varying numbers of sex offenders, the covariance of sex offender location and other neighborhood characteristics would complicate our ability to identify the effect of a sex offender's presence on changes in the value of home sales.

Rather than compare these aggregated areas, however, we know the specific locations in which sex offenders have chosen to live and the date of their arrival. Compared to previous studies, this provides three advantages. The specific location data allows us to compare the value of home sales within very small areas in which the housing stock is more homogenous than in normal aggregate comparisons. This notion is illustrated by Figure 1, which shows the location of one of the sex offenders in our data, the surrounding parcels grouped by neighborhood, and a circle that outlines all parcels located within 0.3 miles of the offender's location. The offenders' particular choice of residence is extremely close to some houses in the neighborhood and farther from others. Moreover, houses in adjacent neighborhoods vary in their distance from the offender's location.

Relying on cross sectional variation alone, however, would be problematic if property characteristics vary within these small areas in ways that are unobservable to the researcher. If for example, sex offenders move into the cheapest property available in a given area (e.g., next to a local "eye-sore" like the home of a resident who has allowed his or her property deteriorate significantly, the artist who decided to paint his house

fluorescent pink, or the local mechanic who has turned his or her front yard into a garage), then variation in the sale value of property around the sex offender's home may reflect distaste for the location to which the offender moved rather than distaste for living near the offender.

This is a constant concern in the literature that attempts to exploit variation in housing prices along geographic administrative boundaries. For example, in an important study of the capitalization of school quality into property values, Black (1999) compares the prices of homes located extremely close to one another but separated by school attendance boundaries. While this strategy may adequately control for fixed factors (e.g., distance from employment center), families may sort based on attendance boundaries so that "neighborhood socio-demographics are likely to vary discontinuously at the boundary" (Bayer et al., 2004).

We therefore examine within-neighborhood variation in property values shortly before and after the arrival of a sex offender. This allows us to control for pre-existing differences in property values between homes closer to the offender and homes farther from the offender within the same neighborhood. This framework would only be compromised if sex offenders consistently moved into properties near which a localized disamenity was likely to emerge. There is no reason to believe that the commission of a sex offense is correlated with such poor judgment in real estate value.

In fact, this possibility seems even more unlikely when one considers that the nature of the search for housing is also a largely random process at the local level. Individuals may choose neighborhoods with specific characteristics, but their choice of exact locations is generally restricted by property availability, i.e., the suitable houses



and/or apartments that are currently on the market. Within a fraction of a mile, the exact locations of the properties available at the time individual seek to move into a neighborhood are out of the control the sex offenders, and are arguably exogenous (Bayer, Ross and Topa, 2004).

#### **4.1 Graphical Evidence**

If living close to a sex offender has a negative impact on property values, we should see prices of homes near the offender's location fall subsequent to the offender's arrival. Moreover, we should observe a larger impact on homes closest to the offender. Figure 2a shows the price gradient of distance to sex offenders' locations during the year after offenders' arrivals. Price gradients are calculated using a linear Fan regression, a nonparametric estimator similar to a kernel. Prices are lowest for homes closest to the offenders, rise with distance until reaching homes about .1 miles away, and then flatten out.

The bottom panel of Figure 2b adds the price gradient of distance to sex offenders' locations during the year before offenders' arrivals. The price gradients are quite similar between 0.1 and 0.3 miles from the offender before and after arrivals. However, there is a clear decline with proximity to a sex offender for homes within 0.1 miles of the offender. Homes located .05 miles from the offender sold for about \$145,000 on average before the offenders arrived, but sold for almost \$125,000 afterwards. The decline in sale price was greater for homes even closer to the offender.

The notion that the price decline within 0.1 miles of an offender reflects a causal impact of the offender's arrival would be supported if the decline coincides with the

offender's arrival and does not reflect a pre-existing downward trend in prices. Figure 3a shows the price gradient of time with respect to sex offenders' arrivals. This gradient is measured separately for the two years before and after offenders' arrivals. Time is measured in days relative to the date sex offenders arrive. If the price decline showed in Figure 2a reflected a pre-existing trend, we would expect to see a gradual downward price movement over this time period. Instead, we find a fairly sharp decrease in prices coincident with offenders' arrivals.

Figure 3b shows the price gradient with respect to offenders' arrivals both for prices within 0.1 miles and houses between 0.1 miles and 0.3 miles of the offender's locations. These latter homes are still quite close to the offenders' locations and (as we saw in Figure 2a and 2b) were selling at similar prices to the affected homes prior to the offenders' arrivals. In contrast to the homes closest to the offenders, prices in these proximate areas did not decline after the offenders' arrivals. It is plausible that the two groups of homes would have had the same trend in prices over time in absence of the offender. This counterfactual is given support by the fact that *prior* to arrivals the prices of homes between 0.1 and 0.3 miles was similar to that of homes within 0.1 miles of the offenders' locations. If so, then these homes slightly farther away from offenders can be used as a control group for measuring the impact of offenders on property values.

## **4.2 Statistical Estimation Framework**

Our estimation strategy will proceed by estimating the models inspired by the graphical evidence: a cross sectional difference estimator, and a difference in differences estimator. First, we use only data on parcel sales within offender areas, and estimate the

average cross-sectional differences in price and parcel characteristics between the areas that are within 0.1 miles of where the offender will move and those sales that occur between 0.1 and 0.3 miles. We estimate these differences both in the two years prior and two years after the offender arrives. Both comparisons use the same estimation specification:

$$\log(P_{ijt}) = \alpha_t + \pi_1 D_{ijt}^{1/10} + \varepsilon_{ijt} \quad (1)$$

The log of the deflated sale price of the house is a function of a measure of distance from the offender, a random error term (allowing for year specific correlation in prices by offender area) and  $\alpha_t$ , a year specific effect. The term,  $D_{ijt}^{1/10}$ , is the distance measure, an indicator variable set to one if a parcel sale occurs within 0.1 miles of an offender's address. To examine variation in other parcel characteristics, we simply substitute those characteristics for log sale price as the dependent variable.

These difference estimates (shown in section 5) document two facts: little or no preexisting differences in housing characteristics close to offenders' locations and a decline in the value of sales due to the offenders' arrivals. No two groups of property, however, are identical, and those in our data set are no exception. To further isolate changes in value from changes in composition, we include all of the data on parcel sales from Mecklenburg County and estimate the decline in property values controlling for observable characteristics of the parcels. Other sales in the county help us estimate the value of observable housing characteristics, hold these characteristics constant, and attribute the remaining changes in value to the offenders' arrivals. This model takes the following form:

$$\log(P_{ijt}) = \alpha_{jt} + \beta X_i + \pi_0 D_i^{1/10} + \pi_1 D_i^{1/10} * Post_{it} + \varepsilon_{ijt} \quad (2)$$

where  $X_i$  is a vector of housing characteristics including size, age, and quality measures and  $\alpha_{jt}$  is a neighborhood by year fixed effect. The use of these fixed effects allows us to capture any differential movement of prices over time across neighborhoods, and to focus only on variation in distance from offenders' locations within neighborhoods. The coefficient  $\pi_1$  is our estimate of the change in property values due to being located close to the offender.

Finally, we estimate a difference-in-differences specification where the counterfactual time trend for homes close to an offender is estimated using the time trend in house prices for homes just slightly farther away. Our difference in differences specification adds a similar indicator variable for homes within 0.3 of a mile of offenders' locations ( $D_{ijt}^{\leq 0.3}$ ) and an interaction with  $Post_{it}$ .

$$\log(P_{ijt}) = \alpha_{jt} + \beta X_i + (\omega_0 D_{ijt}^{\leq 0.1} + \pi_0 D_{ijt}^{\leq 0.3}) + (\omega_1 D_{ijt}^{\leq 0.1} + \pi_1 D_{ijt}^{\leq 0.3}) * Post_{it} + \varepsilon_{ijt} \quad (3)$$

The difference in difference estimate is then given by the term  $\pi_1$ .

## 5. Estimation Results

### 5.1 Differences in Characteristics of Homes Located Close to an Offender

Figures 2 and 3 illustrate that, prior to sex offenders' arrivals, homes located within 0.1 miles of an offender's location have very similar values as homes between 0.1 and 0.3 miles away from the offender's location. They also illustrate that, after the offender's arrival, homes sold located within 0.1 miles of the offender's location are significantly less expensive than those in the 0.1 mile to 0.3 mile range.

To formally estimate these differences, we take all sales of homes in the offender areas and run regressions of house characteristics (including price) on a dummy variable for whether or not the home is within 0.1 of the offender's location and a set of year fixed effects (equation 1). First, we limit the sample to sales that took place before the offender's arrival (Table 3 Panel A), and find little evidence of any preexisting differences in either sale price or house characteristics. The only difference that is marginally statistically significant is the fraction of homes built in the same year in which they are sold.

Figure 4 shows the distribution of prices in these areas in more detail, highlighting the small differences in homes in these areas. The distributions overlap significantly with three small differences: First, the area between 0.1 and 0.3 miles from where the offender will eventually locate have a small number of homes with values over \$400,000. Second, the area within 0.1 miles has slightly more homes in the \$150,000 to \$300,000 range than the area between 0.1 and 0.3 miles of the offender location. Finally, the area between 0.1 and 0.3 miles of an offender location has more homes that sell for \$100,000 to \$150,000.

The average differences in the areas can be more precisely estimated by using not just the characteristics of houses that sell, but all of the houses in the offender areas. These differences are provided in Panel B of Table 3. These differences are of the similar magnitude as the characteristics of homes that sold, though of opposite sign. With a much larger sample, the power of the hypothesis tests is sufficiently increased that these small differences are now distinguishable from zero.

Overall, the results in Panels A and B of Table 3 demonstrate the relative homogeneity of the areas compared in our study. The differences between parcels within

0.1 miles of an offender and those between 0.1 and 0.3 miles, for example, are smaller than the differences one would observe walking down a typical street in these areas. The average standard deviation of sale price on the same street within offender areas is 16 percent of the street's average price. The average standard deviation in the size of homes by street is 244 square feet or about 15 percent of the mean. The difference of 60-80 square feet in average size between the areas within 0.1 miles and between 0.1 and 0.3 miles is about the size of a walk-in closet. Given the price elasticity with respect to size (Column 3 of Table 2) this increase in home size is worth about two percent of the average house price.

After offenders' arrivals, all of the differences in the average characteristics of homes sold within 0.1 miles of an offender and homes between 0.1 and 0.3 miles are similar to the pre-existing differences except for price. While there were no differences in the price of homes sold before the offenders' arrival, prices are approximately 10% lower among homes sold within 0.1 miles of offenders' location after the offender moves. Otherwise, homes are on average 100 square feet smaller (this difference is statistically significant), have .05 less bedrooms, .04 less bathrooms, and are no longer more likely to be built in the same year they are sold.<sup>13</sup>

## **5.2 Estimates Controlling for Area and House Characteristics**

We first present estimates of equation 1 that include sales of homes outside of offender areas. The estimate of  $\pi_l$  from this equation when we restrict the sample to pre-arrival homes sales is simply a measure of the average price difference between houses

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<sup>13</sup> Based upon results not presented in this version of the paper, this reduction in the average size of homes seems to be the result of more homes selling in areas with large numbers of smaller homes. However, given the sample size, it is difficult to analyze such disaggregated effects.

within 0.1 miles of an offender's future location and other houses sold within the same year. This difference is approximately 34% (Column 1 of Table 4), and confirms that homes close to offenders' locations are cheaper than in other parts of the county. However, when we include neighborhood-year fixed effects and house characteristics in the regression (Column 2 of Table 4), we estimate that homes within 0.1 miles of an offender sell for only .7% less on average.<sup>14</sup> This difference is not statistically different from zero at any reasonable confidence level.<sup>15</sup> These results demonstrate that the household characteristics contained in our data set include sufficient information to capture almost all of the differences between areas in which offenders move and the rest of the county, and that, controlling for these characteristics, sex offenders' locations were not significantly less expensive than other parts of their neighborhoods prior to arrival.

Estimating equation 2, we find that homes located within 0.1 miles of an offender's location sold for 4% less on average than surrounding homes after the offender's arrival (Column 3 of Table 4), but just .7% less on average prior to the offender's arrival. This 3.3% decline in price is statistically significant at the 8% level. Estimating equation 3—our differences-in-differences specification—we find a slightly higher estimate of the impact of a sex offender's arrival. This estimate is -4.1%, and is statistically significant at the 4% level (Column 4). The estimated change in value for homes located between 0.1 and 0.3 miles of an offender's location when the offender arrives is positive (1%) but statistically insignificant. Thus, homeowners living just

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<sup>14</sup> Our controls for housing characteristics include dummy variables for the major building quality grades and a linear term for the minor grades, the square footage of the property, fireplaces, number of bedrooms, number of bathrooms, a dummy variable for properties built in the same year they are sold, the age of the house in years, and dummy variables for the number of stories, the external wall type, and air conditioning.

<sup>15</sup> Standard errors are clustered at the neighborhood level for regressions including all sales in the county and at the offender area level for regressions including only offender areas.

slightly farther away from the offender (between 0.1 and 0.3 miles) experienced no decrease in property values on average.

This is a sizable loss. Single family homes within 0.1 miles of offenders' locations sold for about \$135,000 in the two years prior to the offenders' arrivals. Thus, our estimates suggest that homeowners who live extremely close to a sex offender and sell their homes lose between \$4,500 and \$5,500, relative to the amount they would have received if the offender did not move in. Each offender thus causes an average loss to local home owners of \$156,912. Countywide, the 373 offenders known to live in private residences depress property values by an estimated \$59.5 million.

Implicit in our estimation strategy is the assumption that the relationship between housing characteristics and prices outside of the offender areas are valuable in estimating the relationship between prices and those characteristics in the offender areas. This assumption would be violated, for example, if offender areas were systematically different from non-offender areas. The resulting misspecification could cause us to erroneously attribute residual changes in prices in the offender areas to the arrival of the offender. To check for this, we re-estimate equation 3 using only the data from the offender areas (Column 5 of Table 4). Rather than controlling for neighborhood by year fixed effects, we instead control for offender area by year fixed effects and estimate standard errors clustering at the offender area level. These results (impacts of -3.6%) are consistent with those in columns 3 and 4, suggesting that additional data from the rest of the county did not bias our estimates.

While these differences document the average change in prices resulting from the arrival of a sex offender, Figures 2a and 2b suggest that property closest to the offenders'



location declines more steeply in value after the arrival of the offender. To check for this heterogeneity in the treatment effect, we interact distance from the offender with the dummy variable indicating that a parcel is located within 0.1 miles of an offender after the offender has moved in. (Note that distance is measured in hundredths of a mile.) The results are consistent with the figures. Parcels directly adjacent to the offenders' location are estimated to decline by 11.5% and those a tenth of a mile away experience virtually no change in value (a decline of 0.5%).

Given the drop in value for the parcels near an offender, it is possible that offenders' arrivals might have generated a compositional shift in which occupants with a high distaste for living near an offender sell their homes to new occupants who are less averse to the location. For example, families with young children might sell their homes to male-only occupants or couples without children. We do not have information of the actual occupants, but we can check for changes in the probability that a home sells. For this purpose, we construct a monthly panel of all parcels in the offender areas for two years before and after the offender's arrival date. Column 7 of Table 4 presents the estimate of a linear regression of the probability that a parcel sells (measured in percentage points) within the difference in difference framework provided in equation 3. The results suggest that the arrival of an offender does increase the probability that nearby parcels sell by 0.12 percentage points. This is a 20% increase from the baseline probability of sale of 0.57 percentage points.

### **5.3 Falsification Tests**

Figures 2 and 3 and the results in Tables 3 and 4 show little evidence of any preexisting differences in homes located close to an offender relative to other homes in their neighborhoods. However, it is theoretically possible that the decrease in values after offenders' arrival is driven by differential trends in values for homes closest to an offender. In other words, the prices of houses in offender areas may be trending over time in a different way than other houses in their neighborhoods. For example, if houses located near the parcel where an offender moves were experiencing slower growth in prices, this could lead to a spurious negative "impact" of the offender's arrival.

We investigate this possibility by estimating equation 3 using arrival dates equal to two years and three years prior to offenders' actual arrival dates. In both of these specifications, we find no evidence of a spurious effect in this specification (Table 5).

## **6. Estimates of the Cost to Victims of Sexual Offenses**

The results above present evidence that the arrival of a sex offender has a statistically and economically significant impact on the value of homes in the immediate vicinity. As economists, we seek to measure the welfare cost to victims of crimes committed by sexual offenders so that we can make optimal policy decisions, such as how much to spend on programs that reduce crime. Households' willingness to trade off lower house prices against increased victimization risk can be used to estimate the welfare cost of crimes committed by sexual offenders. If the decline in property value close to offenders is indeed driven by increased risk of victimization, then we can make this calculation.

The Department of Justice currently estimates victimization costs using other methods. In a widely cited DOJ study, Miller et al. (1996) estimate victimization costs for various crimes and include measures of tangible costs (e.g., medical expenses, lost work time, property loss etc.) and intangible costs (e.g., pain, suffering, fear, lower “quality of life”). Estimates of tangible costs use a number of sources, but rely heavily on losses and injuries reported in the NCVS. Intangible cost estimates rely on data from jury awards to compensate victims (i.e., not punitive damages) and, for fatal crimes, the average value of life estimate across studies reviewed by Viscusi (1993). Victimization cost estimates from this study are shown in Table 6.<sup>16</sup> Average victimization costs of Rape and Sexual Assault to be roughly \$114,000, 95% of which represents intangible costs. In contrast, the average victimization cost of Burglary is estimated at \$2,000, almost all of which is due to direct costs such as property loss.

Relying on survey responses and jury awards to estimate victimization costs is problematic to the extent that this information does not accurately reflect individuals’ willingness to pay to reduce crime risk. For example, jury awards are often based upon testimony of experts who estimate intangible victimization costs from contingent valuation surveys. Since these surveys require people to hypothetically make a trade-off between suffering from a crime and paying varying amounts of money, one might think that these surveys are likely to overestimate the true amount an individual would be willing to pay to avoid being the victim of a crime. On the other hand, one advantage of the DOJ estimates is that they are based on actual crimes, not perceived risk. Our empirical strategy enables us to estimate the willingness to pay to live far from convicted

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<sup>16</sup> Costs in the DOJ study are given in 1993 dollars. We adjust this to 2004 dollars using the annual CPI for all urban consumers.

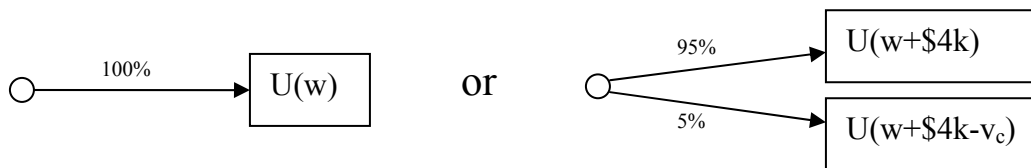
criminals. We infer individuals' willingness to pay to reduce crime risk by estimating the actual distribution of crimes committed against neighbors by sex offenders. However, we cannot be certain that the *perceived* risk is the same as the empirical risk distribution. We return to this issue below in the discussion of our findings.

Our calculation is based on a simplistic model of the choice faced by the marginal homebuyer, whose preferences determine the price discount for living close to a convicted sex offender. This household can choose either to live far from a sex offender or to live close to an offender, get a price discount, and expose itself to higher crime risk. The marginal home buyer will have equal utility under either choice, i.e., the discount for living near an offender will compensate them for the increased crime risk. This notion is expressed by equation 4, where utility is a function of lifetime wealth ( $w$ ), the individual knows the discount ( $d$ ) and the increased probability of crime ( $f(c)$ ) for living near an offender, and  $v_c$  is a scalar that maps crime victimization into an equivalent wealth loss.

$$U(w) = \int U(w + d - v_c c) f(c) dc \quad (4)$$

For example, if we suppose that living close to a sex offender located nearby decreased property values by \$4,000 and increased the risk of being the victim of one crime by 5%.

Then equation 4 can be restated as a choice between two simple lotteries:



If the marginal household is risk neutral, the implied victimization cost would be \$80,000.

Our estimates suggest that property value declined by about 3.5% in areas within 0.1 miles of an offender. At the median price of homes sold in these areas prior to the offenders' arrivals (\$135,000), a 3.5% impact implies a decline in value of \$4,725. We specify the utility function to have constant absolute risk aversion equal to 2.<sup>17</sup> This is generally considered a relatively high level of risk aversion, and perhaps even an upper bound given empirical evidence on labor supply decisions (Chetty 2005). We set lifetime wealth at \$1.575 million. This is the amount of annual income needed to obtain a mortgage equal to the value of the median home in our sample (about \$35,000), multiplied over 45 years.<sup>18</sup>

The amount of additional crime risk faced by neighbors of sex offenders requires a more complex calculation. We estimate the probability distribution with which offenders commit crimes against neighbors using data from the Department of Justice (DOJ), the Federal Bureau of Investigation (FBI), and the National Crime Victimization Survey (NCVS). This calculation requires a number of steps and details are given in the appendix. We make a number of assumptions in this calculation, and we examine the sensitivity of our results to alternate assumptions.<sup>19</sup> For example, the relationship of offender to victim is reported in the NCVS and “neighbor” and “stranger” are both potential responses. Recognizing that some “strangers” may actually be “neighbors,” we assume that the true fraction of crimes committed by neighbors is 200% of the fraction of

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<sup>17</sup> Formally,  $U(w) = -\frac{1}{2}e^{-2w}$ .

<sup>18</sup> Lenders often follow the 28% rule: a family can pay up to 28% of gross monthly income (before other debt payments) as mortgage payments. A 30-year fixed rate mortgage of \$135,000 (the median home price) at 6% interest would give rise to payments of \$810 per month. Family income must therefore be about \$2890 per month or about \$35,000 per year.

<sup>19</sup> For example, the relationship of offender to victim is reported in the NCVS and “neighbor” and “stranger” are both potential responses. Recognizing that some “strangers” may actually be “neighbors,” we assume that the true fraction of crimes committed by neighbors is 200% of the fraction of victims that claim the offender was a neighbor.

victims that claim the offender was a neighbor. The assumptions we make generally will lead us towards low estimates of victimization costs. However, despite these choices, our estimates remain high relative to the lifetime income of our representative household.

If neighbors are only concerned with the increased risk of sexual offenses (Rape and Sexual Assault) associated with living near a sex offender, then the assumption that  $c$  is scalar is fairly trivial and  $c$  would represent the number of sex offenses committed by the sex offender. However, sex offenders commit many types of crime, ranging from Murder to Motor Vehicle Theft, and it seems reasonable that neighbors would be concerned with these crimes as well as sexual offenses. In order to incorporate various types of crime into our simple model,  $c$  and  $v_c$  must be specified as vectors.

Unfortunately, we cannot separately calculate victimization costs for various crimes because we do not have variation in the willingness to pay to reduce the risk of various types of crime. We only have the willingness to pay to not live near a sex offender, and therefore must maintain  $c$  as a scalar. To do so, we assume that all crimes can be specified as a fraction or multiple of a sex offense. For example, victims of a presumably less severe crime, such as Burglary, can be seen as suffering costs that are equivalent to a fraction of a sex offense.

If we knew the relative severity of various types of crime, all crimes could be specifying all crimes in terms of sex offenses would be a straightforward exercise. Because we do not know these relative severities *ex ante*, we must use estimates of victimization costs from some other source. We choose to use estimates from Miller et al. (1996) as a rough approximation to the *relative* costs of victimization among different types of crime, e.g., the relative cost of Burglary is about 2% the cost of Rape.

We estimate that each sexual offense has a wealth-equivalent welfare cost of almost \$1.2 million (Table 7). Thus, the housing market impacts we identify above imply very large costs to victims of sexual offenses—an order of magnitude larger than the DOJ estimates.<sup>20</sup> Moreover, the high amount of risk-aversion assumed and several of the choices made in our estimates of the distribution of crime risk are likely to lead us to overstate crime risk and underestimate victimization costs. We examine the sensitivity of our results to the assumptions embedded in our estimates by estimating victimization costs under wide-ranging alternate assumptions. These alternative estimates vary from about \$0.6 to \$2.3 million. We therefore feel confident that the large implied welfare losses are not an artifact of the assumptions built into our calculation.

There are, however, other potential explanations for the large implied costs we find. First, it may be that individuals overestimate the amount of crime risk associated with living in close proximity to a sex offender. There is a longstanding literature that shows individuals tend to overweight rare events in making decisions under risk and tend to overestimate the actual probability of rare events. (Kahneman and Tversky (1979), Lichtenstein et al. (1978) and Viscusi (1990, 1999)). If individuals overestimate the risks posed by sex offenders, then cost estimates based on objective probabilities will be too high.<sup>21</sup> To illustrate the power of overestimation of risk, we recalculate our victimization cost estimates assuming that individuals believe that any crime sex offenders commit against a neighbor will happen to them. Under this (albeit extreme) assumption, we estimate that sexual offenses have a victimization cost of \$67,000 (bottom of Table 7).

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<sup>20</sup> It is important to note that, for our calculation, we only require that the *relative* costs of various crimes are estimated correctly in the Miller et al. study.

<sup>21</sup> See Kask and Maani (1992) for further discussion of the implications of bias in subjective probability estimation for hedonic estimates of the willingness-to-pay to reduce the risk of hazardous events.

Another explanation for our results is that there is additional cost—above any crime risk—to living in close proximity to a released sex offender. This additional cost could come from several sources. First, it is reasonable to believe that individuals derive utility from interaction with their neighbors, and that this utility may vary with their neighbor’s characteristics (e.g., shared interests). If individuals derive low utility from interactions with neighbors who are sex offenders, this could lead to a larger impact on house prices. Second, there may be consumption losses that stem from the increased crime risk created by the sex offender’s presence (e.g., your friends refuse to visit you). Third, there may be a psychic cost to living near a sex offender, i.e., a cost to living with increased *fear* of crime. The cost of living in close proximity to an offender may include a constant reminder of the possibility of the worst outcomes – such as those faced by the families of Megan Kanka and Jacob Wetterling.

This latter explanation is supported somewhat by the distance gradient of the impact of a sex offender’s arrival. Recall that the impact of a sex offender’s arrival on housing prices is extremely localized, with no price impact more than .1 miles (about 2 city blocks) from the offender’s location and the largest impacts in the homes virtually next door to the offender. We do not know of any evidence on whether the expected change in crime risk should have a similar gradient, but it seems unlikely that the risk posed by the sex offender should decline so quickly in distance and be confined to such a small area. However, it may well be that those neighbors living closest to the offender are far more likely to be aware of his/her presence by passing by the offender’s home or come into contact with the offender on the street.



## 6. Conclusion

Local governments spend more than \$50 billion per year on police protection, more than five times the amount spent by state governments even including intergovernmental expenditures (Census of Governments, 2003). Comparable expenditure at the federal level is difficult to measure, but the entire budget of the Department of Justice in fiscal year 2003 was less than \$20 billion. The magnitude of these expenditures implies that individuals care deeply about crime prevention.

The results of this paper suggest that individuals show a significant distaste for living in close proximity to a convicted criminal. Using very detailed data on the locations of convicted sex offenders (whose identities and residential locations are made public on the North Carolina Sex Offender Registry) and the dates on which they move into a neighborhood, we estimate that on average the values of homes within 0.1 miles of an offender fall by roughly four percent. This effect dissipates quickly with distance of homes from the offender; homes between 0.1 and 0.3 miles away show no effect.

These results are a significant improvement upon the existing literature because we are able to exploit a quasi-random process (the selection of a specific home by a sex offender among those available on the market at the time) that introduces a convicted criminal into a very specific geographic area. We then use both cross-sectional and time series variation in values of homes sales in the specific locations in which an offender chooses to live. This allows us to identify the causal relationship between the risk of crime and changes in property values than previous studies that rely either only on cross sectional variation in risk (Larsen et al., 2003) or those that use panels of crime statistics in aggregate geographic areas.

These estimates suggest that individuals have a strong distaste for living in close proximity to a sex offender. We estimate that a single offender depresses property values in the immediate vicinity by \$4,500 to \$5,500 per home. If we aggregate these effects across all homes affected and all offenders, we find that the presence of sex offenders depress property values in Mecklenburg County by about \$58 million. This suggests that households would be willing to pay a high cost for policies that remove sexual offenders from their neighborhoods.

We combine the estimated decline in property values with data on crimes committed by sexual offenders against neighbors to estimate costs to victims of sexual offenses. Two key assumptions in our calculation are that all of the decline in property value is due to increased crime risk and that neighbors' perceptions of risk are in line with objective data. We estimate victimization costs of over \$1 million—far in excess of estimates taken from the criminal justice literature. These estimates imply a high willingness to pay for policies that reduce the incidence of sexual offenses.

Unfortunately, we cannot test the two assumptions underlying this estimate. It is quite plausible that individuals substantially overestimate the risks posed by neighboring sex offenders or experience a cost—unrelated to crime risk—of living in close proximity to an offender. If so, then the willingness to pay for policies that only decrease crime risk would be lower. However, under these alternative hypotheses, households would be willing to support policies that provided accurate information regarding the risks posed by sex offenders or isolate sex offenders without decreasing crime risk.

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## Appendix: Calculation of Crimes Committed Against Neighbors by Sex Offenders

For illustrative purposes, suppose that there is only one kind of crime and that  $g(c)$  is the probability distribution of crimes committed by sex offenders. Further, let us suppose that there is a constant probability that, conditional on crimes being committed, they are committed against neighbors ( $P_N$ ). Finally, let us suppose that there is a constant number of neighbors ( $N$ ) who are potential victims, that all neighbors are equally likely to be victims, and that crime, conditional on being committed against neighbors, is committed against a single neighbor.  $f(c)$ , the probability distribution of crimes committed against neighbors, will then be:

$$f(c) = g(c) \frac{P_N}{N}$$

Under these assumptions, we can use data on  $g(c)$ ,  $P_N$ , and  $N$ , to estimate  $f(c)$ .

In order to estimate  $g(c)$ , we first calculate the number and type of crimes for which sex offenders are arrested in the three years subsequent to their release from prison. This information comes from “Recidivism of Prisoners Released in 1994,” a data set collected in 1998 by the Bureau of Justice Statistics on prisoners released by 15 states. This data set includes all 10,337 sex offenders who were released from these states in 1994, and gives a complete inventory of all arrests and adjudications of these offenders through 1998. These states are: Arizona, California, Delaware, Florida, Illinois, Maryland, Michigan, Minnesota, New Jersey, New York, North Carolina, Ohio, Oregon, Texas, and Virginia. The data set also includes a stratified sample of all other prisoners released in these states in 1994. Because this data contains offenders’ entire criminal histories, we treat as sex offenders all released prisoners who had previously been convicted of a sexual offense, not just those whose most current prison sentence was due to a sexual offense conviction. We use sampling probability weights to construct population averages. We drop offenders for whom a record of arrests and prosecutions (a “RAP sheet”) was not successfully located and offenders who died during the three years following their release. We also drop a small number of offenders who had unknown arrest and adjudication dates (making it impossible to distinguish recidivism from prior criminal history) or had adjudication dates that preceded the arrest date for any given offense.

Table A.1 shows the fraction of sexual offenders and other released criminals who are arrested for various crimes during the first three years after their release from prison. Sex offenders are much more likely to be arrested for a sexual offense than other released criminals. The fraction of released sex offenders who are later arrested for Rape and Sexual Assault are 2.1% and 4.0%, respectively. Moreover, the ratio of arrests for sex offenders vs. other criminals is over 4:1 for Rape and over 5:1 for Sexual Assault. Arrests of sexual offenders are similar to other released convicts for violent crime, though somewhat more likely for Kidnapping and Assault, and less likely for Murder, Manslaughter, and Robbery. Arrests of sex offenders are significantly less likely for non-violent crimes such as Burglary, Larceny, and Motor Vehicle Theft.

It is important to note that sample selection into this data set may overstate the frequency of arrests for all criminals at all times. Almost all of the released criminals in our data spent a year in prison for their crimes, whereas 30% of sex offenders registered in North Carolina spent less than one year in prison. Also, we examine offenders just

after their release from prison, when they are most likely to recidivate. Indeed, of sexual offenders' arrests for Rape and Sexual Assault, 37% and 49% (respectively) come in the first year after their release. These one-year statistics are also reported in Table A.1.

Not all crimes lead to arrests. In order to calculate the crimes actually committed by offenders, we use statistics from Lee and McCrary (2005) on the fraction of crimes that are reported to the police and fraction of reported crimes that lead to an arrest (Table A.2). Their calculations are based on comparisons of victimization reports from the National Crime Victimization Survey (NCVS) and crimes reported to the police and reported crimes that lead to arrests from FBI Uniform Crime Reports (UCR). See appendix table II of their study for further explanation. Because the NCVS and UCR data do not break out crimes into great detail, we assume that similar crimes have similar crime/arrest ratios. For example, we assume that the ratios are the same for Rape and Sexual Assault.

According to their estimates, for every individual arrested for a sexual offense, roughly four offenses had actually been committed (i.e., there is a crime/arrest ratio of 4:1). Although we can use the estimates in Table A.2 to gauge crime/arrest ratios, we do not have estimates of the extensive and intensive margins of criminal activity. In other words, even if the crime/arrest ratio is 4:1, it may be that (intensive) all four crimes were committed by the same offender who was arrested, or it may be that (extensive) four different offenders committed one crime each, but only one offender was arrested.

We assume that the crime/arrest ratio is due entirely to the intensive margin, i.e., each arrest is indicative of multiple crimes, but non-arrested offenders do not commit crimes. Given this assumption, the empirical distribution of arrests and the estimated crime/arrest ratios are sufficient to estimate the empirical distribution of crimes committed. It is important to note that the intensive assumption—placing a larger number of crimes on a small number of offenders—will lead us towards estimates of welfare costs that are lower, given risk aversion, than assuming that some of the crime-arrest ratio is due to offenders who commit crimes but are not arrested.<sup>22</sup>

We estimate the fraction of crimes committed against neighbors using the fraction of victims claiming that the offender was a neighbor in the concatenated NCVS files from 1993-2004. Because the NCVS cannot ask murder or manslaughter victims about their offenders, we use the 2003 Supplemental Homicide Reports (a subset of the UCR data) to estimate offenses by neighbors for these crimes. This is, of course, only possible for crimes where the offender is known. Murder and Manslaughter are not separately identified in this data, so we combine them. For Murder/Manslaughter, Rape, and Sexual Assault, the fractions of offenses committed by neighbors are 0.7%, 3.7% and 6.9%, respectively (Table A.3 column 1). These figures suggest that the crime risk from

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<sup>22</sup> This can be shown in the following manner: Suppose there is a  $1/N$  chance of being a victim of  $N$  crimes. Indifference to this risk implies  $U(w) = \frac{1}{N}U(w+d-nv) + \frac{N-1}{N}U(w+d)$ , where notation follows equation 4. As  $N$  increases, the probability of being a victim falls, but the number of crimes committed per victimization rises. This is essentially the intensive margin assumption.  $\frac{dv}{dN}$  is the change in the wealth equivalent value of a *single crime* that sustains the equation when  $N$  rises. Solving for  $\frac{dv}{dN}$  yields an expression proportional to  $[U(w+d) - U(w+d-nv)] - nvU'(w+d-nv)$ . The term in brackets equals the loss in utility from victimization, which must be smaller than the second term if the agent is risk averse, i.e., if  $U'' < 0$ . For a risk neutral agent,  $\frac{dv}{dN}$  would be zero.

neighbors may be quite small. One potential problem with these measures is that victims may not know their neighbors. The fraction of crimes committed by *both* neighbors and strangers is a possible alternate measure, but it is often an order of magnitude greater than the fraction committed by neighbors alone, and is likely to considerably overestimate crime risk from neighbors (Table A.3 column 2). Recognizing the problems inherent in both measures, we assume that the true fraction of crimes committed by neighbors is 200% of the fraction of victims that claim the offender was a neighbor. In other words, for every crime victim claiming the offender was a neighbor, another victim claimed the offender was a stranger when, in fact, the true offender was a neighbor.

We estimate the number of households in the neighborhood among which crime risk from the sex offender is spread by measuring the number of single family homes located within one tenth of a mile of offenders in Mecklenburg County. The median number of single-family homes within one tenth of a mile of offenders' parcels—at the time they moved in—is 120. This is probably an underestimate of the number of relevant households facing the increased risk of crime, since it does not include other residential structures such as condominiums, multi-family homes and apartment buildings.

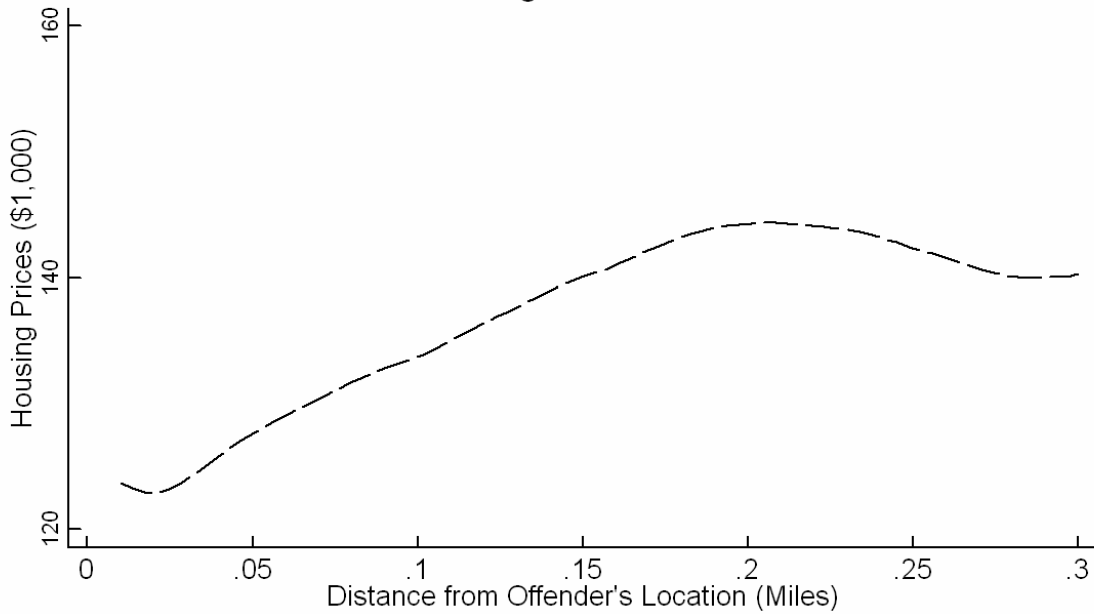


**Figure 1: An Offender Area and Surrounding Neighborhoods**



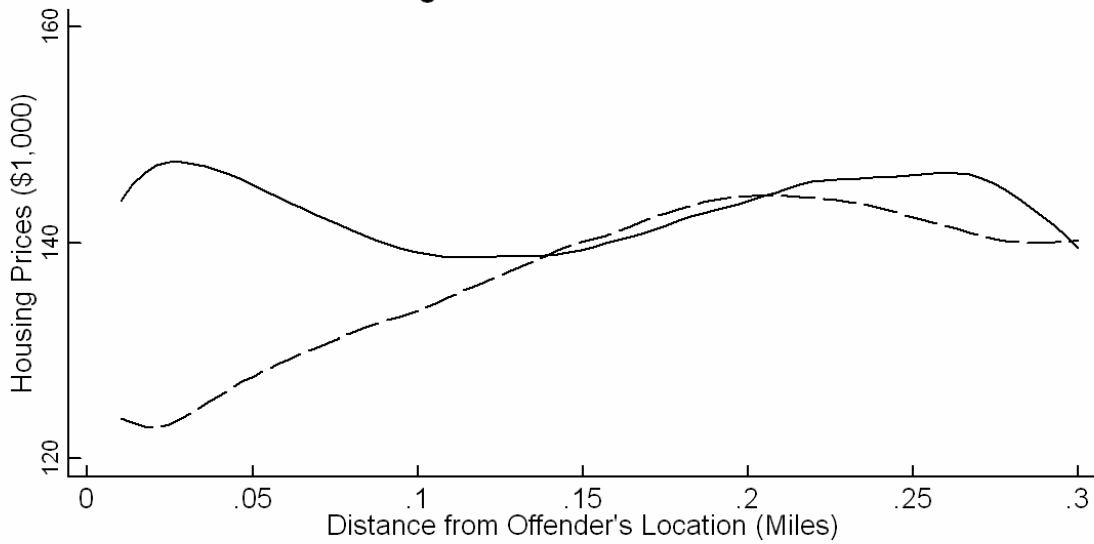
Note: X marks the center of the offender's exact location. The surrounding circle marks all parcels within one-quarter of a mile. Neighborhoods are distinguished by shades of gray. Parcels within a neighborhood are usually, but not necessarily, contiguous.

Figure 2a: Price Gradient of Distance from Offender Sales During Year After Arrival



Note: Results from local polynomial regressions (bandwidth=0.075 miles) of sale price on distance from offender's future/current location.

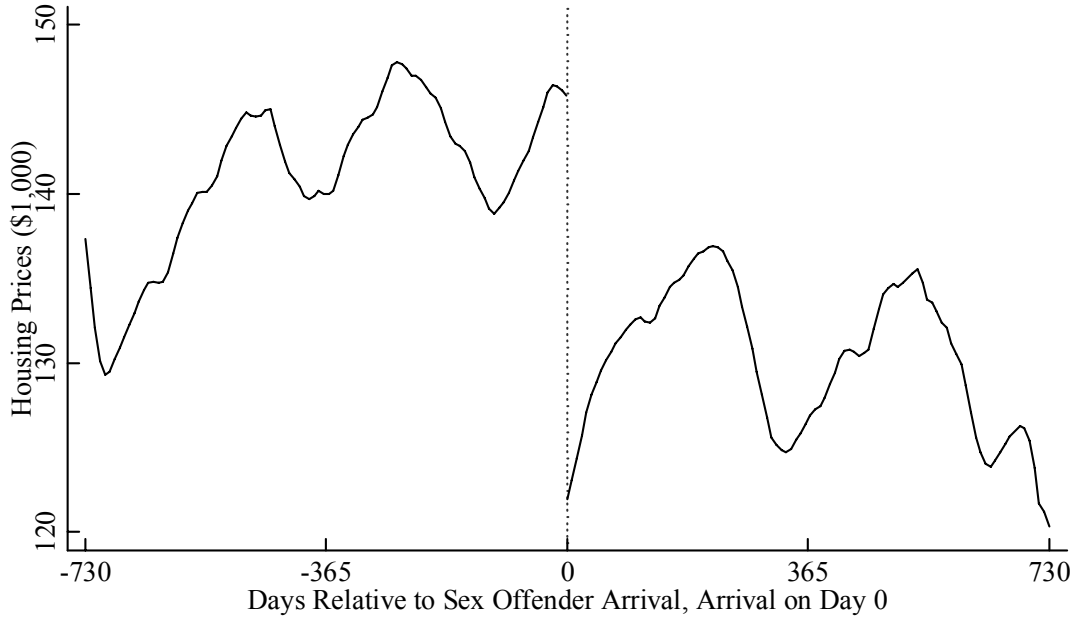
Figure 2b: Price Gradient of Distance from Offender Sales During Year Before and After Arrival



— Before Offender Arrives      - - - After Offender Arrives

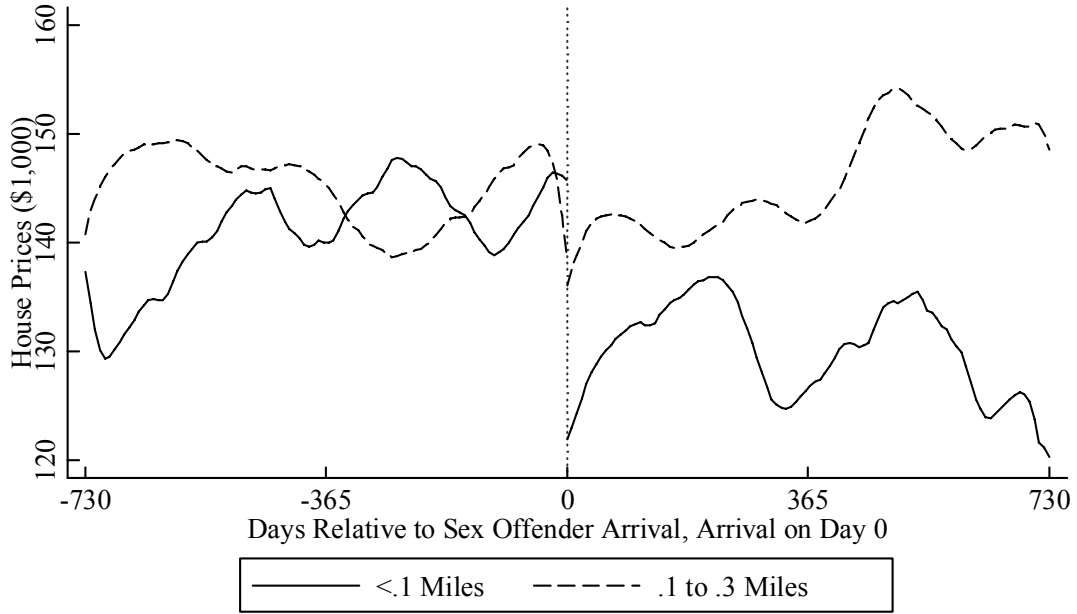
Note: Results from local polynomial regressions (bandwidth=0.075 miles) of sale price on distance from offender's future/current location.

Figure 3a: Price Trends Before and After Offenders' Arrivals  
Parcels Within Tenth Mile of Offender Location



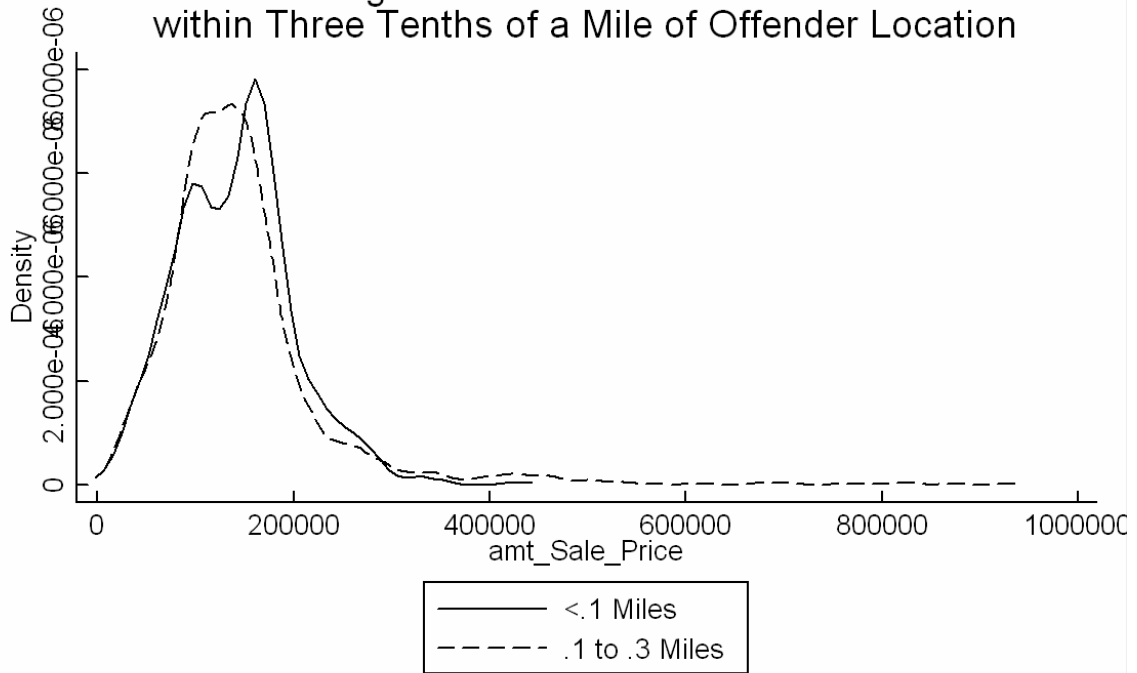
Note: Results from local polynomial regressions (bandwidth=90 days) of sale price on days before/after offender arrival.

Figure 3b: Price Trends Before and After Offenders' Arrivals  
Parcels Within 1/3 Mile of Offender Location



Note: Results from local polynomial regressions (bandwidth=90 days) of sale price on days before/after offender arrival.

Figure 4: Distribution of Price  
within Three Tenths of a Mile of Offender Location



Note: Results from kernel density estimating using optimal bandwidth

Table 1: Sexual Offenses Committed by Registered Offenders in North Carolina

Crime Committed	<i>State</i>		<i>Mecklenburg County</i>	
	Frequency	Percent	Frequency	Percent
Indecent Liberty with a Minor	8874	71.6%	417	67.7%
Sex Offense	1338	10.8%	71	11.5%
Rape	1085	8.8%	66	10.7%
Attempted Rape or Attempted Sexual Offense	467	3.8%	35	5.7%
Sexual Exploit of Minor	261	2.1%	5	0.8%
Incest Between Near Relatives	152	1.2%	13	2.1%
Kidnapping Against a Minor - 1st and 2nd Degree	98	0.8%	6	1.0%
Felonious Restraint Against a Minor	55	0.4%	1	0.2%
Other	58	0.5%	2	0.3%

Note: Frequencies and percentages represent number of crimes in each category committed by offenders. Offenders may committ multiple crimes.

Table 2: Characteristics of Homes Sold in Mecklenburg County, 1994-2004

	All Parcels	Within 1/3 Mile of Offender	
	<i>Mean (Std Dev)</i>	<i>Mean (Std Dev)</i>	<i>Marginal Effect in Price Regression<sup>2</sup></i>
Sale Price (\$100,000)	2.048 (1.324)	1.438 (0.848)	
Square Footage (1,000 Sq Ft)	2.075 (0.880)	1.620 (0.595)	0.294 (0.011)*
Quality Rating <sup>1</sup>	3.251 (1.208)	3.066 (0.979)	0.015 (0.005)*
	<i>Percentage</i>	<i>Percentage</i>	
<b>Air Conditioned</b>	93.3%	84.6%	0.111 (0.011)*
<b>Sold in Year Built</b>	29.5%	19.6%	-0.042 (0.012)*
<b>Story Height</b>			
1 Story	39.4%	56.5%	
1.5 Stories	6.4%	5.4%	0.058 (0.016)*
2.0 Stories	49.1%	32.5%	0.055 (0.011)*
3 or More Stories	1.6%	0.6%	0.131 (0.048)*
Split Level	1.1%	1.4%	-0.019 (0.029)
Other	2.4%	3.5%	-0.014 (0.021)
<b>Bedrooms</b>			
1 Bedroom	0.1%	0.1%	
2 Bedrooms	5.2%	11.4%	0.171 (0.094)+
3 Bedrooms	60.8%	71.8%	0.277 (0.094)*
4 Bedrooms	30.0%	15.5%	0.255 (0.095)*
5 Bedrooms	3.6%	1.1%	0.322 (0.101)*
6 Bedrooms	0.3%	0.1%	-0.200 (0.150)
<b>Bathrooms</b>			
1 Bathroom	14.1%	30.8%	
2 Bathrooms	72.4%	65.1%	0.087 (0.012)*
3 Bathrooms	10.9%	3.7%	0.112 (0.024)*
4 Bathrooms	2.5%	0.4%	0.182 (0.064)*
Sample Size	170,239	9,092	9,086
R <sup>2</sup>			0.75

<sup>1</sup>Quality is rated on a 6 point scale that tends from low quality to high quality; <sup>2</sup>Estimated for parcels sold in offender areas by regressing log(Sale Price) on listed variables and offender area by year fixed effects.

Table 3: Pre- and Post-Arrival Differences in Average Characteristics of Homes Sold Close to Offenders' Locations

<i>Panel A, Pre-Arrival Differences in Sales</i>						
	Log Price	Built in Year Sold	Age in Years	Sq. Feet (1,000s)	# of Bedrooms	# of Bathrooms
Within .1 Miles of Offender	0.007 (0.034)	0.062 (0.035)+	-1.081 (1.117)	0.059 (0.047)	0.022 (0.034)	<.001 (0.036)
Constant	11.605 (0.036)*	0.186 (0.030)*	16.616 (1.153)*	1.589 (0.039)*	3.050 (0.028)*	1.716 (0.034)*
Sample Size	4497	4497	4497	4497	4497	4497
R <sup>2</sup>	0.06	0.03	0.04	0.03	0.03	0.03
<i>Panel B, Differences in All Existing Parcels</i>			Age in Years	Sq. Feet (1,000s)	# of Bedrooms	# of Bathrooms
Within .1 Miles of Offender			0.205 (1.050)	-0.079 (0.027)*	-0.048 (0.025)+	-0.081 (0.024)*
Constant			37.671 (1.518)*	1.538 (0.037)*	2.992 (0.029)*	1.585 (0.035)*
Sample Size			31856	31856	31856	31856
R <sup>2</sup>			<0.001	<0.001	<0.001	<0.001
<i>Panel C, Post-Arrival Differences in Sales</i>						
	Log Price	Built in Year Sold	Age in Years	Sq. Feet (1,000s)	# of Bedrooms	# of Bathrooms
Within .1 Miles of Offender	-0.096 (0.037)*	0.005 (0.050)	-0.591 (1.504)	-0.097 (0.043)*	-0.054 (0.038)	-0.042 (0.043)
Constant	11.628 (0.038)*	0.166 (0.027)*	17.337 (1.080)*	1.626 (0.038)*	3.042 (0.026)*	1.721 (0.033)*
Sample Size	4595	4595	4595	4595	4595	4595
R <sup>2</sup>	0.04	0.03	0.05	0.02	0.02	0.02

Note: Pre-arrival (post-arrival) refers to the two-year period before (after) the date upon which the offender registered their current address. Standard errors (in parentheses) are clustered at the offender area level. \* significant at 5% level; + significant at 10% level

Table 4: The Impact of Sex Offenders' Locations on Property Value and Sale Probability

	Log(Sale Price)		Log(Sale Price), Pre- and Post-Arrival				Probability of Sale <sup>†</sup>
	Pre-Arrival		(3)	(4)	(5)	(6)	(7)
	(1)	(2)					
Within .1 Miles of Offender	-0.340 (0.052)*	-0.007 (0.013)	-0.007 (0.012)	<.001 (0.013)	-0.006 (0.012)	-0.013 (0.014)	-0.033 (0.034)
Within .1 Miles * Post-Arrival			-0.033 (0.019)+	-0.041 (0.020)*	-0.036 (0.021)+	-0.115 (0.060)+	0.125 (0.059)*
Dist*≤.1 Miles* Post-Arrival (0.1 Miles = 1)						0.11 (0.065)+	
Within 1/3 Miles of Offender				-0.010 (0.007)			
Within 1/3 Miles * Post-Arrival				0.010 (0.010)	0.010 (0.016)	0.010 (0.017)	-0.055 (0.040)
<i>H<sub>0</sub>: Within .1 Miles* Post-Arrival = 0</i>			<i>P-value =</i> 0.0805	<i>P-value =</i> 0.0442	<i>P-value =</i> 0.0813	<i>P-value =</i> 0.0579	<i>P-value =</i> 0.0364
Housing Characteristics		√	√	√	√	√	√
Year FE	√						
Neighborhood - Year FE		√	√	√			
Offender Area - Year FE					√	√	√
Restricted to Offender Areas 2 Years Pre- and Post-Arrival					√	√	√
Standard Errors Clustered by...	<i>Neighbor- hood</i>	<i>Neighbor- hood</i>	<i>Neighbor- hood</i>	<i>Neighbor- hood</i>	<i>Offender Area</i>	<i>Offender Area</i>	<i>Offender Area</i>
Sample Size	164,993	164,968	169,557	169,557	9,086	9,086	1,519,364
R <sup>2</sup>	0.03	0.84	0.84	0.84	0.75	0.75	0.01

Note: Pre-arrival (post-arrival) refers to the two-year period before (after) the date upon which the offender registered their current address. Standard errors in parentheses. \* significant at 5% level; + significant at 10% level; † Probability sale is measured as percentage points, e.g., Probability of sale = 1 would be 100 percentage points.



**Table 5: Falsification Tests on Impact of Sex Offender Location**

	<i>Baseline Estimates</i>	<i>2 Year Prior Arrival Dates</i>	<i>3 Year Prior Arrival Dates</i>
		(1)	(2)
Within .1 Miles of Offender	<i>&lt;.001 (0.013)</i>	-0.017 (0.016)	-0.013 (0.016)
Within .1 Miles * Post-Arrival	<i>-0.041 (0.020)*</i>	0.018 (0.020)	-0.004 (0.020)
Within .25 Miles of Offender	<i>-0.010 (0.007)</i>	-0.010 (0.007)	-0.012 (0.008)
Within .25 Miles * Post-Arrival	<i>0.010 (0.010)</i>	-0.001 (0.007)	0.001 (0.008)
H <sub>0</sub> : Within .1 Miles*Post-Arrival = 0	<i>P-value = 0.0442</i>	<i>P-value = 0.3669</i>	<i>P-value = 0.8577</i>
Sample Size	<i>169,557</i>	169557	169557
R <sup>2</sup>	<i>0.84</i>	0.84	0.84

Note: The dependent variable is the log of house price. All regressions contain neighborhood-year fixed effects and housing characteristics (see text for list of characteristics included). Baseline results are taken from column (4) of table 4. Standard errors (in parentheses) are clustered by neighborhood.

Table 6: Estimated Victimization Costs from  
Department of Justice Study

Type of Crime	Cost (\$2004)
<i>Sexual Offenses</i>	
Rape and Sexual Assault	\$113,732
<i>Violent Crimes</i>	
Murder/Manslaughter	\$3,843,363
Assault	\$31,374
Robbery	\$10,458
Kidnapping	\$43,140
<i>Non-violent Crimes</i>	
Burglary	\$2,092
Larceny	\$523
Motor Vehicle Theft	\$5,229

Note: These cost estimates are taken from tables 2 and 4 in Miller et al. (1996). Their cost estimates are given in 1993 dollars. We adjust these for inflation using the 1993 and 2004 annual CPI for all urban consumers. Victimization costs for kidnapping are not listed in their study and we therefore set equal to the cost of assault with injury against a child under the age of 11.

Table 7: Estimated Victimization Cost of a Sexual Offense  
Using Housing Market Impact and Objective Data on Crimes Against Neighbors

<b>Assumptions in Calculation</b>	<b>Estimated Victimization Cost</b>
Baseline Assumptions	\$1,176,000
Lower Risk Aversion ( $\lambda=1$ )	\$2,031,100
Higher Risk Aversion ( $\lambda=3$ )	\$839,000
Fewer Neighbors (60)	\$1,016,100
More Neighbors (180)	\$1,259,000
Fewer Offenses by Neighbors (100% of NCVS)	\$2,353,000
More Offenses by Neighbors (300% of NCVS)	\$588,100
Systematic Overestimation of Risk: Housholds Neglect to Realize that Risk is Spread Among Neighbors	\$66,700

Note: Baseline assumptions are as follows: (1) utility function with constant absolute risk aversion equal to 2, (2) lifetime wealth equals \$1.575 million, (3) housing market discount equals \$4,750, (4) neighborhood risk is spread among 120 neighbors, (5) the fraction of crimes committed against neighbors is 200% of the reported rates in the NCVS.

Table A.1: Probability of Arrest After Release from Prison,  
by Type of Crime and Type of Criminal

Type Of Crime	Sexual Offenders		Other Criminals	
	3 Years	1 Year	3 Years	1 Year
<i>Sexual Offenses</i>				
Rape	2.1%	0.8%	0.5%	0.2%
Sexual Assault	4.0%	1.9%	0.7%	0.3%
<i>Violent Crimes</i>				
Murder	0.6%	0.3%	0.7%	0.3%
Manslaughter	0.1%	0.0%	0.2%	0.1%
Kidnapping	1.9%	1.1%	0.7%	0.3%
Robbery	4.3%	2.3%	6.2%	2.8%
Assault	14.1%	5.1%	13.5%	5.8%
<i>Non-violent Crimes</i>				
Burglary	7.1%	2.8%	9.9%	5.4%
Larceny	11.0%	4.3%	16.5%	9.0%
Motor Vehicle Theft	3.0%	1.1%	4.6%	2.3%

Note: Shown are the fraction of released prisoners arrested for various crimes of prisoners released in 1994 during the years after their release from prison. See the appendix for a description of this data set.

Table A.2: Crime/Arrest Ratios from Lee and McCrary (2005)

Type Of Crime	% of Crimes Reported to Police	% Reported Crimes that Lead to Arrest	Ratio of Crimes to Arrests
<i>Sexual Offenses</i>			
Rape	45.0%	54.0%	4.12
Sexual Assault*	"	"	4.12
<i>Violent Crimes</i>			
Murder	64.0%	77.0%	2.03
Manslaughter*	"	"	2.03
Robbery	26.0%	71.0%	5.42
Assault	57.0%	46.0%	3.81
Kidnapping*	"	"	3.81
<i>Non-violent Crimes</i>			
Burglary	13.0%	58.0%	13.26
Larceny	18.0%	33.0%	16.84
Motor Vehicle Theft	14.0%	86.0%	8.31

Note: These figures are taken from appendix table II of Lee and McCrary (2005) and are the results of their calculations using data from the National Crime Victimization Survey and Uniform Crime Reports for 2002. "\*" denotes that no information is on reporting and arrests was available for this crime and that it is assumed that reporting and arrests follow the same pattern as the preceding (similar) crime.

Table A.3: Percent of Crimes Committed by Neighbors

Type Of Crime	% of Crimes by Neighbors	% of Crimes by Neighbors or Strangers
<i>Sexual Offenses</i>		
Rape	3.7%	18.7%
Sexual Assault	6.9%	24.8%
<i>Violent Crimes</i>		
Murder/Manslaughter	0.7%	15.5%
Robbery	3.2%	53.4%
Assault	5.5%	31.7%
Kidnapping*	"	"
<i>Non-violent Crimes</i>		
Burglary	11.1%	46.1%
Larceny	5.1%	35.6%
Motor Vehicle Theft	3.0%	50.7%

Note: With the exception of Murder and Manslaughter, these figures are calculated using victims' reports of offenders' identities in the 1993-2004 Concatenated NCVS. Figures for Murder and Manslaughter are calculated using data from the 2003 Supplemental Homicide Reports. "\*" denotes that information was not available for this crime and it is assumed that offenses by neighbors follow the same pattern as the preceding (similar) crime.



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CENTER FOR SEX OFFENDER MANAGEMENT

C S O M

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A Project of the Office of Justice Programs, U.S. Department of Justice

# An Overview of Sex Offender Management

July 2002



Established in June 1997, CSOM's goal is to enhance public safety by preventing further victimization through improving the management of adult and juvenile sex offenders who are in the community. A collaborative effort of the Office of Justice Programs, the National Institute of Corrections, the State Justice Institute, and the American Probation and Parole Association, CSOM is administered by the Center for Effective Public Policy.

## Center for Sex Offender Management

A Project of the Office of Justice Programs, U.S. Department of Justice

# An Overview of Sex Offender Management

June 2002

## Background

Most convicted sex offenders reside, or at some point following a criminal justice sentence will reside, in the community. A comprehensive and collaborative approach to sex offender management can help to control offenders' sexually abusive behaviors. This document describes briefly characteristics of sex offenders and their victims, as well as ideal components for managing sex offenders in the community. Because of local policies or other restrictions, some of these components may not be practical or feasible for all jurisdictions to include in their management programs. At a minimum, sex offenders are best managed by multidisciplinary teams that include supervising probation or parole agents and treatment providers who work together to individualize supervision and treatment plans according to the unique challenges of a specific offender. Including additional components as described in this document can further enhance a jurisdiction's sex offender management program and potentially reduce further sexual victimization.

## The Victims of Sexual Abuse

Sexual abuse is considered to be a widely underreported crime. Because of the intensely personal impact that sexual crimes have on victims, many may be reluctant to report them. Based on analyses of self-report victimization surveys of women in the United States, however, researchers have been able to draw several important conclusions. Most sexual assaults are committed by someone known to the victim or the victim's family, regardless of whether the victim is a child or an adult (Greenfeld, 1997). Approximately 78 forcible rapes of women 18 years of age and older are committed each hour in the United States, and 1 of 6 U.S. women and 1 of 33 U.S. men have experienced an attempted or completed rape as a child and/or adult (Tjaden & Thoennes, 1998). At least one in five girls and one in seven boys have been sexually abused by age 18 (Finkelhor, 1994). Sexual crimes often are perpetrated against youth: 22 percent of female rape victims were assaulted before they were 12; 32 percent were between 12 and 17 at the time they were sexually assaulted (Tjaden & Thoennes, 1998). Approximately two-thirds of state prisoners convicted of rape or sexual assault offended against children (Greenfeld, 1997).

## Adult Sex Offenders

Although many practitioners describe sex offenders with such words as "manipulative," "secretive," "devious," and "deceptive," a set of characteristics (e.g., physical, mental, psychological, personality, emotional) that is common to all or most sex offenders has not been identified. Because of the diversity in the demographic and social makeup of those who commit sexual offenses, a profile of a "typical" sex offender does not exist, although the vast majority of sex offenders are male. While information about male sex offenders traditionally has dominated the literature in this field, a growing body of research about female sex offenders is beginning to emerge.

## The Etiology (Cause) of Sexually Abusive Behavior

Many etiological theories purport to explain why some men perpetrate sexual abuse. Unfortunately, none of these theories applies to all (or even a majority) of them. Sexual abuse is an extraordinarily complex, multi-faceted problem that cannot be easily or simply explained.

The great majority of sex offenders do not commit their crimes impulsively without any planning or forethought. Most sex offenders have a cycle that is associated with their offending behavior that begins hours, days, weeks, or even months before the actual sex crime is physically perpetrated.

## Sex Offender Recidivism Rates

Accurately measuring the rate at which sex offenders recidivate is difficult. Most studies that attempt to measure recidivism equate reoffending with rearrest or reconviction, which is problematic because of the generally accepted understanding that sexual assault is a widely underreported crime. Therefore, researchers are concerned that some reported recidivism rates are artificially low. Findings also suggest that recidivism rates fluctuate widely, depending on the type of sexual offense the offender has committed. Additionally, few longitudinal studies have been conducted on sex offender recidivism to date. In those that have been conducted, however, researchers conclude that long-term recidivism rates are lower for sex offenders than for the general criminal population. Researchers also have argued that offenders who receive specialized and intensive sex offender treatment have a significantly lower rearrest rate than offenders who did not participate in treatment. (For further information about sex offender recidivism studies, see: CSOM (2001), *Recidivism of Sex Offenders*.)

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## Sexually Abusive Youth

The prevalence of sexual abuse perpetrated by youth has increased in recent years. It is estimated that juveniles may account for up to one-fifth of all rapes and approximately one-half of all cases of child molestation committed each year in the United States (Barbaree, Hudson, & Seto, 1993; Becker, Harris, & Sales, 1993; Sickmund, Snyder, & Poe-Yamagata, 1997).

The emerging wisdom among experts who work with these youth is that they are profoundly different from their adult counterparts and that it is inappropriate to respond to juveniles who commit sex offenses by simply applying what is known about adult sex offenders.

Available research does not suggest that the majority of sexually abusive youth are destined to become adult sex offenders. Although funding and ethical issues have made it difficult to conduct carefully controlled treatment outcome studies, a number of encouraging clinical reports on the treatment of sexually abusive youth have been published. Sexually abusive youth appear to respond well to cognitive-behavioral and/or relapse prevention treatment, with rearrest rates of approximately 7 percent in follow-up periods of more than five years (Alexander, 1999). Program evaluation data suggest that the sexual recidivism rate for juveniles treated in specialized programs ranges from approximately 7 to 13 percent in follow-up periods of two to five years (Becker, 1990).

While these studies are not definitive, they provide support for the belief that the majority of these youth can benefit significantly from treatment. However, additional data are needed to understand more fully the extent and etiology of juvenile sexual abuse as victimization data indicates that a vast number of sexual assaults go unreported and there may be even higher rates of under-reporting among victims of incest/sibling offenses. (For further information about sexually abusive youth, see: CSOM (1999), *Understanding Juvenile Sexual Offending Behavior: Emerging Research, Treatment Approaches and Management Practices*.)

## Sex Offenders With Developmental Disabilities

Many communities around the country struggle with the issue of managing adult sex offenders with developmental disabilities. Although they may be different in terms of their cognitive skills, developmentally disabled sex offenders pose many of the same challenges to supervision agencies as other adult sex offenders. While the tendency of some agencies may be to treat this population in a different way than sex offenders without developmental disabilities, it is important to remember the following:

- Sex offenders with developmental disabilities pose as clear a threat to public safety as sex offenders without developmental disabilities.
- Developmental disabilities do not cause or excuse sexual offending.
- Sex offenders with developmental disabilities should be provided treatment that is appropriate to their developmental capacity and their level of comprehension.

To assess effectively whether a sex offender with developmental disabilities can be adequately managed in the community given the unique kinds of services they are likely to need, supervision and treatment agencies must:

- Evaluate the offender's level of cognitive impairment to gauge his or her suitability for community supervision.
- Work with treatment providers who are knowledgeable about sex offending behavior and have treated developmentally disabled individuals.
- Work intensively with personnel from mental health and social services departments, group home staff, and others who may be involved closely in the offender's daily life.

## Female Sex Offenders

The myth has long existed that females do not perpetuate sexual abuse. And although men commit the majority of sexual offenses, research indicates that females commit approximately 20 percent of sex offenses against children (ATSA, 1996). Unofficial data sources (those that include data about cases other than the ones reported to police) also suggest that the percentage of sexual abuse cases perpetrated by women may be as high as 20 percent of cases overall (Finkelhor & Russell, 1984).

Unlike their male offender counterparts, female sex offenders were sexually victimized at almost twice the rate of men, most often by a family member (Kaplan & Green, 1995). Other preliminary research findings suggest the following:

- Sexual abuse that is perpetrated by women often occurs in care giving situations and may be committed in isolation or because of coercion by or in conjunction with a male counterpart.
- Women who sexually abuse are often socially isolated and lack a sense of attachment and belonging.
- Female sex offenders often have a history of substance abuse and emotional disturbances such as depression and post-traumatic stress disorder, and they often have experienced a history of sexual and physical abuse as children.
- Practice regarding the treatment and supervision of female sex offenders is in its infancy. However there appears to be consensus about the separation of males and females in treatment settings and agreement that treatment strategies for females need to be gender-specific, addressing the unique etiology of female sexual abuse.

# The Components of Effective Sex Offender Management

## The Fundamental Principles and Concepts that Underlie Sex Offender Management

No two jurisdictions can or should manage sex offenders in exactly the same manner; local practices must take into account the nature of the local population of sex offenders as well as the resources available to respond to sex offending behavior. The following are some common elements in the promising sex offender management work that is occurring in diverse jurisdictions around the nation:

- A primary goal—shared by all stakeholders—of preventing future sexual victimization.
- Multidisciplinary, multi-agency, and collaborative responses on both the case management and policy levels.
- Practitioners who are specially trained to work with sex offenders.
- The willingness and the capacity to assess critically—and in an ongoing fashion—current approaches and practices so that as the sex offender management field evolves, the work that is occurring in these jurisdictions also advances.

## Collaboration

Various agencies are involved with sanctioning and treating offenders and protecting and treating victims. Although some of these agencies may not have traditionally worked together—in fact, they may have divergent missions and goals—collaborating to prevent additional occurrences of sexual abuse by offenders under supervision is vitally important. Collaborating partners should be in contact with one another about developing policies on sex offender management, assessing the impact of those policies on victims, and seeking the input of one another on the most effective ways to hold sex offenders accountable while providing support to and safety for victims. Increased information sharing, limited confidentiality, and an overall willingness to work more closely with other organizations should characterize all collaborative efforts.

The personnel who should be involved in these collaborations include:

- Criminal justice system personnel such as judges, prosecutors, defense attorneys, and law enforcement officers who are responsible for processing offenders through the criminal justice system.
- Correctional officials who are responsible for preparing sex offenders for release to the community as well as those supervision and law enforcement officers who monitor offenders while they are in the community.
- Victim advocates and victim treatment providers who provide services, support, and information to victims throughout the criminal justice process and can serve as their voice in criminal justice system decisions that can impact victims.
- Sex offender treatment providers who can rely in part on information gleaned from supervision officers and others who may have contact with or knowledge of offenders and their behavior to more effectively hold them accountable and to help them develop strategies to stop their sexually abusive behavior.
- Others who have a stake in or role to play in preventing further victimization, from polygraph examiners to social service providers, child protective agencies, and school administrators.

Despite the difficulties that coordinating activities and policies among these different stakeholders is likely to pose, the effective management of sex offenders requires these individuals to work together toward the unified goal of protecting victims and the community.

## A Victim-Centered Approach

In addition to offering services to survivors of sexual abuse and responding to issues that may arise when offenders are released into the community, victim advocates can serve an extremely important function overall: to ensure that the interests of current and potential future victims remain at the forefront for those working to manage sex offenders in the community.

Victim advocacy is a central component of several promising sex offender management initiatives around the country. Victim advocates have a unique perspective on the trauma that victims face. They have the capacity to establish relationships with victims, act as a resource for victims as they participate in the criminal justice process, and continue to support victims after offenders are released into the community under supervision. This specialized and personal understanding of the needs of victims can permit advocates to work with supervision agencies to:

- Enhance sex offender management policy development to ensure that the safety needs of victims are paramount.
- Develop and deliver professional training initiatives to educate criminal justice system and other actors about the effects of victimization.
- Inform day-to-day supervision practices, especially around policies that may be harmful to victims.
- Assist and support supervision agencies with community notification and education efforts, which should include a component aimed at providing information about sexual assault to community members.

## Specialized Sex Offender Assessment

Because of the complex and varying nature of sexual abuse and the individuals who perpetrate it, practitioners must assess sex offenders and their behavior effectively and in an ongoing, collaborative fashion. This enables them to respond appropriately to and manage the different levels of risk that offenders pose over time to victims and the community. Sex offender assessment can be seen as a process that has two related domains (risk and clinical) and inter-dependent purposes, which practitioners must understand and communicate about clearly and consistently. The risk assessment domain has two purposes: risk prediction and risk management.

- *Risk prediction* is the science of predicting the likelihood of recidivism over a period of years. The most accurate and useful predictions of risk come from empirically based, scientifically validated tools. These tools are developed using historical or static (unchangeable) risk factors (such as number of convictions) that are statistically correlated with sexual recidivism risk. They enhance the ability of practitioners to identify sub-groups of offenders who pose a higher risk to re-offend than others.
- *Risk management* is the process (undertaken by probation/parole officers, treatment providers, police officers, victim advocates, and many others) of recognizing and responding to on-going, short-term (hourly, daily, or weekly) changes in sex offender risk. This process is premised on the understanding that every sex offender has a unique set of dynamic factors (or "criminogenic needs") such as anger problems that are related to the immediate risk they pose.

The clinical assessment domain also has two purposes: clinical diagnosis and clinical treatment.

- *Clinical diagnosis* is the process of assessing whether severe psychological or psychiatric problems are present in sex offenders. The results impact the criminal justice process (i.e.,

competency, mental status, and criminal responsibility) and the determination of appropriate treatment responses.

- *Clinical treatment* includes the assessment of sex offenders' specific treatment needs; the development of comprehensive treatment plans that respond to these needs; and the ongoing assessment of these needs and the effectiveness of the treatment interventions employed (or treatment progress).

The information garnered from risk prediction tools; and the risk management, risk prediction, clinical diagnosis, and clinical treatment processes all inform the critically important point-in-time decisions that practitioners make throughout the criminal justice process (beginning at arrest and ending at the termination of a sentence) to protect victims and the community.

## Specialized Sex Offender Supervision

The experiences of probation and parole agencies across the nation indicate that sole reliance on commonly used, traditional supervision practices (e.g., scheduled office visits, periodic phone contact) does not adequately address the unique challenges and risks that sex offenders pose to the community. In response, specialized approaches to sex offender supervision have been developed in jurisdictions around the country that often include:

- A primary focus on the prevention of future victimization and the protection of victims and the community.
- Close collaboration and frequent information sharing among supervision agents and other practitioners who share responsibility for sex offender management (e.g., treatment providers, victim advocates, law enforcement officers, and polygraph examiners).
- Specialized, ongoing training for agents who work with sex offenders.
- Special conditions of supervision designed to address the specific and unique risks and needs of each sex offender.
- Supervision agents who are willing and able to be involved in each offender's daily life and habits.
- Small caseloads so that agents working with sex offenders can engage in intensive casework in the field.

## Specialized Sex Offender Treatment

Specialized treatment is a critical component of any jurisdiction's approach to sex offender management and is markedly different from traditional mental health counseling or psychotherapy in a number of significant ways:

- The primary focus is the protection of victims and the community.
- Information discussed in treatment sessions is shared with supervision agents, polygraph examiners, and others as necessary.
- Considerable attention is directed toward making offenders understand the harm they have caused their victim(s).
- Thinking errors that contribute to offending patterns are revealed, examined, and challenged.
- Offenders participate in professionally facilitated group sessions in which they challenge one another about their denial, distortions, and manipulation.

Sex offender treatment programs that include a relapse prevention component and cognitive-behavioral techniques and that tailor their treatment responses to meet the varying, diverse, and complex needs of sex offenders have the greatest chance to reduce both sexual and general recidivism. Treatment programs should also include other adjunctive components such as marital and family therapy, substance abuse treatment, educational and vocational supports, medication when needed, and individual therapy to address sex offenders' other problems and issues.

## Re-Entry

Careful consideration of how to transition sex offenders back into the community safely is of critical importance. Since sex offenders often commit their crimes in secrecy and isolation, ensuring that they are employed in appropriate settings, housed appropriately, receiving specialized treatment, and are working toward developing pro-social, supportive relationships may be key to interrupting their cycle of sexually abusive behavior. Criminal justice, treatment, and victim advocacy agencies must make a concerted effort to develop release plans and community supports that balance issues associated with the offender's successful reintegration with the public's safety.

## Post-Conviction Polygraph Exams

Post-conviction polygraph examinations are increasingly used as a mechanism to assist in managing sex offenders more safely and effectively in their communities. The polygraph has become an important asset in treatment and supervision because it provides independent information about compliance with supervision conditions and progress in specialized treatment. When an offender is engaging in non-compliant behavior, a polygraph test may reveal information that can impel the supervision officer to revise the case plan and/or take other action to prevent relapse and encourage success. In many jurisdictions, the polygraph examiner is a key member of the case management team. Polygraph examiners who administer tests to sex offenders should be specially trained to work with this population.

Three types of post-conviction polygraph examinations are commonly administered to sex offenders under probation or parole supervision: full disclosure or sexual history examinations, which are used to obtain a complete history of an offenders' sexual behavior; specific issue examinations, which are useful when offenders are either in complete denial or maintain that they did not commit the crimes for which they were convicted; and maintenance or monitoring examinations, which are administered on a periodic basis and help to verify offenders' compliance with treatment and supervision conditions.

Debate over its validity and reliability is ongoing. However, the value of the tool seems undisputed among those who use it—jurisdictions that have integrated it into their approaches to sex offender management report that it is effective when used as an adjunct to treatment and supervision. Those who use the polygraph, however, also assert that decisions about levels of supervision and methods of treatment are based upon a variety of important and ever changing issues, not just the results of polygraph testing.

## Sex Offender Registration

All states have enacted sex offender registration laws as a means of deterring offenders from committing future crimes, providing law enforcement with an additional investigative tool, and increasing public protection. To achieve these goals, states have developed numerous promising approaches to sex offender registration. These include developing written policies and procedures detailing the registration process, collecting thorough information on registered sex offenders,



providing ready access to this information for all law enforcement officers, and developing systems to transfer registration information within and across state lines effectively and efficiently so that offenders cannot escape registration obligations. The most comprehensive approaches to sex offender registration involve the collaboration and coordination of efforts among all of the agencies involved in the process for the primary purpose of preventing further sexual victimization.

## **Community Notification**

As a result of federal legislation, all 50 states have enacted sex offender community notification laws. The primary objective of these laws is to ensure that the public can access information that will assist them in protecting themselves and their families from dangerous sex offenders who reside in their communities. Tremendous variation exists among the states, and even within states, in how these statutes have been implemented. However, most states use one or more of the following practices for disseminating information: media release, door-to-door flyers, mailed flyers, community meetings, or Internet distribution.

Despite the intention of enhancing public safety, community notification laws can have negative effects on the criminal justice system, the community, victims, and offenders. Many programs throughout the country have made efforts to reduce these effects. These efforts—conducted in a multi-disciplinary, collaborative fashion—involve educating communities about methods that citizens can employ to protect themselves and their families from sexual victimization and advising community members that most sexual abusers live undetected in the community.

## **Civil Commitment**

8 Sixteen states have enacted what are termed “sexually violent predator” or “civil commitment” statutes. These statutes allow state authorities to hold a sex offender after his or her criminal sentence has expired if he or she is deemed too dangerous to be released. Civil commitment statutes mandate that these individuals be confined to a treatment facility until such time that they are assessed to have benefited enough from treatment that they no longer pose an imminent risk to the community. These statutes have been challenged in many states because of civil liberty concerns; however, to date, no state’s civil commitment legislation has been successfully overturned on those grounds.

## **Public Health and Primary Prevention**

Current interventions directed to ending sexual abuse focus primarily on intervening with offenders who have already perpetrated sex offenses. However, criminal justice system actors who envision a response to sexual violence beyond the bounds of their own system must begin to forge collaborative partnerships with those in the public health and primary prevention arenas in an effort to stop sexual violence before it occurs.

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