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Fear of crime and housing prices: Household reactions to sex offender registries ☆

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ABSTRACT

Megan's Law requires public dissemination of information from sex offender registries. Opponents to this controversial law have questioned whether households misinterpret or even use this information. One concern was that the information might simply induce a "fear of crime." This study finds evidence for both use and misinterpretation of the publicly available information on sex offenders. Using a unique dataset that tracks sex offenders in Hillsborough County, Florida, the results indicate that after a sex offender moves into a neighborhood, nearby housing prices fall by 2.3% ($3500 on average). However, once a sex offender moves out of a neighborhood, housing prices appear to immediately rebound. Surprisingly, these price impacts do not appear to differ in areas near high risk offenders labeled as "predators."

1. Introduction

The abduction of eleven-year-old Jacob Wetterling in October of 1989 led to the enactment of the "Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act" in 1994. This act required every state to create a sex offender registry. The brutal murder of Megan Kanka by a neighbor who was also a twice-convicted child molester was the impetus behind congress enacting the 1996 "Megan's Law." Megan's Law amended the 1994 Jacob Wetterling Act by requiring dissemination of information from the sex offender registry to the public. Currently every state has complied with the legislation and most states have websites that provide access to the sex offender registry over the internet. Accessible information typically includes a picture of the offender, information on the offence(s), whether or not the offender is classified as a "predator," and the current address of the sex offender.[1]

In passing Megan's Law and in defending it in the courts, the government and judicial system have repeatedly concluded that the public safety benefits from providing this information exceed the privacy costs to the offenders. However, this conclusion has been controversial. Opponents of the law have questioned the legality of placing a publicly viewable "scarlet letter" on a sex offender that effectively punishes the offender twice.[2] Concerns have also been raised about the possible costs resulting from the public misinterpreting the information placed on sex offender registries. For example, it is possible that the information might lead to an increased "fear of crime" cost where households' subjective evaluations of sex offense risk, widely diverge from objective measures of sex offense risk.[3] This may be especially true if households fail to recognize the different level of risk posed by an eighteen year old man listed for statutory rape with his sixteen year old girlfriend and a sixty year old man listed for molesting a four year old boy. Another example of a cost from misuse of the registry information is the possibility that the public could use the infor-

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[1] See http://www.klaaskids.com for information and links to state websites.

[2] The U.S. Supreme court has rejected the "double-jeopardy" argument by concluding that sex offenders pose a unique threat to communities. Interestingly there are no public registries for murderers or other criminals who are subsequently released from prison.

[3] See Hale (1996) for a review of the "fear of crime" literature.

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mation to perform acts of vigilantism to drive sex offenders out of neighborhoods or cause them physical harm.[4] A final concern with the registries was that the public safety benefits would fail to materialize if the public did not actively search out the information available on the registry.

This study investigates households' reactions to the information in sex offender registries through their impact on housing prices. The investigation will provide information about households' marginal willingness to pay to reduce crime risk. Given that sex offenders' addresses are posted on these registries, informed households can use this information to alter their home buying decisions. If the information on the residential locations of sex offenders reduces the prices of homes nearby in a causal way, then this would provide evidence that at least some of the public is paying attention and using the information made available by these registries to reduce crime risk. Furthermore, if there are differential impacts for high risk offenders labeled as "predators," this would provide evidence that the public is interpreting the information correctly by distinguishing between different sex offender risk types.

There have been two other studies that have investigated the relationship between sex offender locations and housing prices. The first by Larsen et al. (2003) used a single year of housing data in Montgomery County, Ohio, and the sex offenders that were listed as living in the county at the end of the year, to generate a cross-sectional estimate. They found that housing prices appeared to be reduced by approximately 17% for homes within 0.1 miles of registered "predators," but that there was only an 8% reduction in price for sex offenders without the "predator" label. The causal interpretation of these cross-sectional estimates however is questionable given the potential for omitted variable bias.[5] The second paper by Linden and Rockoff (2006), exploits both cross-sectional and temporal variation in sex offender locations and housing prices in Mecklenburg County, North Carolina. This was possible because of a file they obtained on all sex offenders living in the county as of January 1, 2005 that contained the approximate dates for when those offenders moved into their current residence. Using a difference-in-difference identification strategy that compared housing prices in areas before and after a sex offender moved in, this paper estimated that the introduction of a sex offender into a neighborhood reduced housing prices within 0.1 miles by approximately 4%.

The present study makes three important contributions beyond this previous literature. First it strengthens the causal interpretation of the impact of sex offenders on housing prices by exploiting a unique dataset that not only provides information on when sex offenders move into neighborhoods, *but also when they move out*.[6] Using housing data purchased from the property appraiser's office in Hillsborough County, Florida and a unique dataset on sex offender movements provided by the Florida Department of Law Enforcement (FDLE), an analysis of the impact of sex offender residential locations on housing prices was conducted. The identification strategy exploits the quasi-random variation that sex offender movements provide in both space and time, in a fixed effects framework. The findings suggest that the average "treated" house within a tenth of a mile of a registered sex offender living in a single family residence, sold for 2.3% less after the sex offender moved into the neighborhood. This is approximately a $3500 reduction for the average priced house in the sample. Moreover in the "reversal treatment," housing prices in the tenth of a mile area surrounding a sex offender residence appear to rebound shortly after the sex offender leaves the neighborhood suggesting that the sex offender neighborhood "move in" estimate is causal.

A second contribution of this study is that it explores whether or not households and housing prices react differently to sex offenders labeled as high risk "predators" using both cross-sectional and temporal variation. It is found that the housing price impact described above appears to be invariant to whether or not the sex offender is labeled as a "predator." These results suggest that households are indeed using the registry information but are misinterpreting this information given that household valuation of risk does not appear to be in line with objective estimates.[7] This finding is quite different from the cross-sectional result produced by Larsen et al. (2003) and has important policy implications about how the released information is affecting household welfare.

A third contribution of this study is that it analyzes if households and housing prices reacted to widespread media coverage of two high profile child abductions and murders committed by sex offenders in the spring of 2005 in Florida. These events were widely covered by the media and therefore could potentially cause a change in household reactions to offenders and thereby produce a differential impact on housing prices. Results from this study found no such impact. Again, this may have important implications for policies that mandate publicly provided information.

The results from this study not only provide empirical evidence of households' reactions to an important national law, but also add to at least three literatures in economics. First, methodologically the analysis adds to the work by Black (1999) and Chay and Greenstone (2005) who illustrate how quasi-random experiments can be used in conjunction with the hedonic model and housing data to more accurately reveal household preferences. The quasi-random experiment in this study is unique because it provides the ability to not only estimate a treatment effect on an implicit housing price, but also a "reversal treatment" effect. This is important because even in a quasi-random experiment there can be omitted variable bias and the reversal treatment provides a robustness check for the empirical evidence generated by the experiment. Second, the analysis adds to the literature that includes Thaler (1978), Cullen and Levitt (1999), Katz et al. (2001), Kuziemko and Levitt (2004), Gibbons (2004) and others, on the value of crime risk reduction. The quasi-random variation in sex offender locations provides an opportunity to break the endogeneity that has plagued this literature for one specific type of crime. Finally, the analysis adds to a literature on the impact of public information disclosure programs that includes Ippolito and Ippolito (1984), Mathios (2000) and Jin and Leslie (2003). This study also concludes that public information disclosure programs can influence household behavior.

The remainder of the study will proceed as follows. Section 2 provides background on how households might perceive the information on residential locations of sex offenders. Section 3 gives some background on the study area and describes the data used in

[4] Since the registries have been available there have only been a few cases of lethal vigilantism. However, other forms of harassment in an attempt to drive offenders from neighborhoods appear to be more common.

[5] For example, if sex offenders tend to locate in low income areas that suffer from disamenities not controlled for in the cross-sectional regression, then this would bias the estimate for the impact of sex offenders on housing prices.

[6] In most "natural experiments" the analyst does not have the luxury to witness a reversal in the treatments that have naturally occurred. As long as housing near a previous sex offender residence is not stigmatized, then one would expect housing prices that had been depressed while the offender lived in the neighborhood to immediately rebound after the sex offender moved out of the neighborhood. Since the information made available on the sex offender registries does not provide the previous addresses of offenders (unlike the archived data acquired for this study), it is difficult to imagine that a stigma effect would exist. Therefore, finding that housing prices rebound when they receive the "reversal treatment" would strengthen the causal interpretation of any housing price decline after a sex offender moved into a neighborhood.

[7] It should be noted that this estimate is somewhat noisy and therefore some caution should be exercised in interpreting the result.