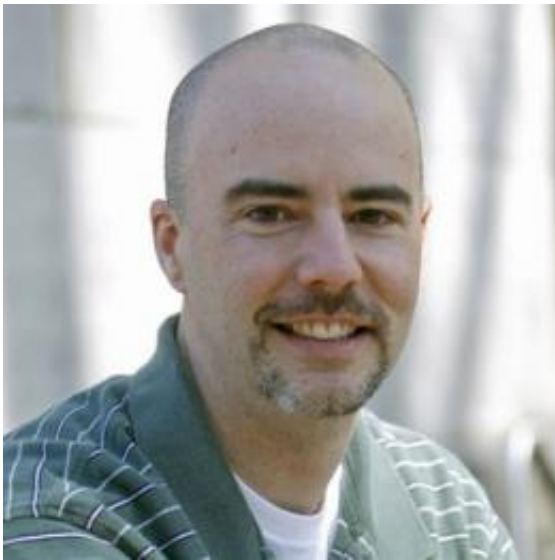


Mathematical model can help communities better evaluate sex offender policies

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Tony Grubestic is an associate professor of geography at IU Bloomington.

(PhysOrg.com) -- A new mathematical model developed by Indiana University Bloomington and Arizona State University geographers could help communities that are in the midst of passing or reforming sex offender laws. The researchers describe the model and report its first test in an Early View edition of *Papers in Regional Science*. By forcing users to quantify risk and issues of special concern, the model can help the policymakers of concerned communities to focus on the spatial management of sex offenders and not mere punitive measures.

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"We've taken a rigorous, quantitative approach that [policymakers](#) can implement," said IU Bloomington geographer Tony Grubestic. "You can't recommend one sex offender policy or management strategy over another with any sort of confidence if you don't know how the proposed laws will play out in reality."

Grubestic devised the model with Arizona State University geographer Alan Murray.

The model incorporates many of the pertinent variables addressed in popular sex offender laws, including housing restrictions, sensitive facilities and individuals who might be considered the prey of [sexual predators](#). By adjusting parameters and variables, model users can see how adjustments in a law would influence the position and density of sex offenders in a community.

There are three commonly used geographic strategies for managing sex offenders, all of which entail some type housing restrictions. In general, residence restrictions prevent sex offenders from establishing a permanent residence within a specified distance (e.g. 1,000 ft.) from a sensitive facility, such as a school. Dispersion ordinances seek to reduce neighborhood exposure to sex offenders by minimum distance at which the sex offenders may live or work relative to other sex offenders. The

rationale behind saturation laws is similar to that of dispersion laws, except saturation laws focus on limiting the number of sex offenders who may live in a single residence, or within a pre-defined complex of residences or development.

While most states in the U.S. have residence restrictions in place, supplemental or increasingly punitive laws are often passed at the local level in the wake of tragedies. As a result, many laws tend to be focused on the isolation of offenders, to the exclusion of practical matters, like ensuring access to rehabilitation services or monitoring the unfair exposure of rural or exurban areas to higher concentrations of sex offender parolees.

"A lot of local policies are knee-jerk reactions," Grubestic said. "As a result, communities may actually expose themselves to a net-greater risk than in the absence of a law, and that's because there is very little empirical investigation into how these laws might impact communities before they are passed."

A commonly reported story last year was the clustering of convicted sex offenders under the Julia Tuttle Causeway in Dade County, Fla. Laws that restrict the zones where sex offenders can live in the county (which includes Miami) were so vast that there were few, if any, places left for sex offenders to live.

Some might be tempted to disregard the sex offenders' plight as fitting, if only because sex offenders are among the most reviled criminals in our society. But what of the law-abiding citizens who live near sex offender clusters? Are such residence restrictions fair to them? And aren't sex offender parolees harder to track if they aren't associated with a specific residence?

In recent years, states and local governments have enacted secondary

laws to address these problems, with some success.

The Grubsesic/Murray model promises simplicity, allowing communities to see how different kinds of approaches to managing sex offenders work, and also see how these approaches interact with each other in new and unexpected ways. It also allows governments to demonstrate an intention of good faith -- that they acted dispassionately to protect society-at-large, rather than pile on double-jeopardy-type punishments to sex offenders who'd completed the terms of their sentences. Civil rights organizations, such as the ACLU, occasionally take up the causes of sex offenders in those situations.

"Our model allows communities to more definitively state that the laws were passed earnestly and in a transparent fashion -- taking into account the various costs and benefits associated with different distributions of sex offenders," Grubsesic said.

Grubsesic and Murray tested their model in Hamilton County, Ohio, chosen for its ongoing efforts to manage sex offenders and for its demographic diversity. The geographers demonstrated vastly different outcomes associated with a variety of hypothetical sex offender ordinances and their permutations. By way of example, the researchers have shown that lawmakers could ostensibly look at the geographic results of each use of the model, and decide which risk management strategy best suits local values and needs.

Provided by Indiana University

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