

The Tipping Point: Searching for a Neighborhood's Crime Threshold

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For some years, a small group of criminologists have been attempting to understand crime using a theory called the ecology of crime. This is about how criminal opportunities are created in neighborhoods. Recently renewed interest in these studies has led to some new findings which may offer additional tools to prevent crime. One such concept is the idea of the neighborhood threshold, or what is also called the tipping point.

Threshold was first used as an urban planning concept in the early 1970s. The basic idea was that a neighborhood, just like a natural ecosystem, had the capacity to hold only a certain number of things. Add too many and the system will collapse because it exceeds its carrying capacity. It would overrun the tipping point.

The tipping point idea has been used to explain the epidemic of gang homicide and drive-by shootings from 1987 to 1992 in Los Angeles. In a study in Austin, Texas, one researcher suggests that abandoned buildings in neighborhoods constitute magnets for crime. Another early study of vandalism in London's public housing found that the density of children living in the units emerged as the single most important explanation for vandalism.

Obviously urban planning and neighborhood design has a major role to play. This is a modern version of the 1970s concept called crime prevention through environmental design. From this point of view, the existence of bars and taverns in some neighborhoods is not a trivial matter. This is true for the victims of crime, the police who respond to alcohol-related calls, and for those control these establishments. The implications are obvious; too many bars in too small an area creates an excessive amount of alcohol related crime. This leads to a drain of municipal services, especially policing. In other words, the tipping point of that neighborhood will have been exceeded. The question left for police and other public officials is how to find that tipping point?

To answer this question, the Vancouver Bar Study was developed by Action Assessment Group, a crime prevention and urban planning firm, in conjunction with criminology students from nearby Simon Fraser University. It was coordinated through a combined effort between the City of Vancouver Manager's Office, the Vancouver Police Department, and members of the Vancouver Planning department in the early months of 1993. Data collection, analysis, and further development of a "tipping point model" continued into 1995. The initial goal was to study licensed premises in Vancouver's downtown eastside, a police "hotspot" containing the city's skid row and some of the highest crime rates in the country.

It was not the simple number of bar seats and alcohol availability that mattered most. We felt that the total number of bar seats located in a neighborhood had a multiplier effect on the police calls for service. Tipping points do not mean simple linear relationships (1 call for 10 barseats, 2 for 20, etc). They mean that bar seats impact alcohol-related crime in an exponential way (for example 1 call for 10 barseats, 3 for 20, 6 for 30, etc). At some point police, social service, and city resources become exhausted. This is the neighborhood threshold above which civic politicians, municipal workers, police, and community residents may decide not to tolerate. A neighborhood such as this will have exceeded its tipping point.

The study was expanded to include an analysis of not only the licensed premises in the downtown eastside, but also in four other neighborhoods for comparative purposes. The five neighborhoods ranged from an eight block to a sixteen block radius. The study concentrated on bars, lounges, and taverns and broke alcohol availability down to numbers of bar seats. In all, there were a total of 53 licensed establishments with 10,250 bar seats. Calls for service related to alcohol in the five areas

were tallied for a one month study period. The "tipping point model," technically called a logarithmically-transformed least square regression model, was developed for computer analysis that calculated threshold in the five neighborhoods.

Numerous factors were examined within these neighborhoods including income, population density, type of residency, the quantity of alcohol served, neighborhood stability, and land uses. Other data were included in additional tests, however it was the number of bar seats that emerged from the model as the main variable explaining calls for service. This provided some of the first empirical evidence documenting neighborhood threshold.

A small sample size of only five neighborhoods, and a short one month study period, cannot totally substantiate this phenomenon. Further research is necessary. Also threshold levels will likely be based as much on community consensus, available resources, and politics, as on the model outlined here. But, what this suggests is that, for the five neighborhoods in this study, there is empirical support for the idea of a neighborhood tipping point.

What can be done? The city of Kamloops, British Columbia, a community of 50,000, provides an example of one possibility. This past summer residents used the tipping point model to advocate limits to their city council for new bars in the city center. They calculated that, in a downtown that generated 328 calls per month from 10 existing bars and 1,780 seats, a new bar proposed for their neighborhood could increase the monthly police call loads by 30 percent. Council opposed the new liquor license.

Another possibility is bar distance requirements. Since bar seats within a neighborhood influences threshold limits, the proximity of bars to each other is critical. This has been studied in the Electric Avenue area of Calgary. There a planning report recommended a minimum separation distance between bars of 144 feet to control the number bars and to prohibit the development of drinking establishments above 1,500 square feet. This would control both the number of bars and the number of bar seats on the street, hopefully below the neighborhood tipping point (this was prior to development of the tipping point model).

The neighborhood threshold idea should not confuse the role of social and economic factors contributing to problems in neighborhoods. Poverty, unemployment, substance abuse, and other factors are also significant. It is probably true that, with moderate drinking and proper management, there is little wrong with neighborhood bars and pubs. But, for many neighborhoods, too much of a good thing is not a good thing. The preliminary evidence offered in the Vancouver Bar Study indicates that the number of bar seats generates ample access to a significant crime facilitator - alcohol. Under the right circumstances, too many bars can tip neighborhoods over their threshold. Urban planning policy, liquor regulations, and proper bar management, can have a direct impact on this one single crime facilitator, the number of bar seats in a neighborhood.