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Hidden Hot Spots: Identifying and Understanding the Spatial Distribution of Crime

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Abstract : A wealth of research has been generated examining the variation in crime across neighborhoods. However, there is also a striking degree of crime concentration within neighborhoods. A number of studies show that a small percentage of street segments, intersections, or addresses account for a large portion of crime. Not surprisingly, a focus on these crime hot spots can be an effective strategy for reducing community level crime and related ills, such as health problems. However, research is also limited in an important respect. Studies tend to use official data to identify hot spots, such as 911 calls or calls for service. While the use of call data may be more representative of the actual level and distribution of crime than some other official measures (e.g. arrest data), call data still suffer from the 'dark figure of crime.' That is, there is most certainly a degree of error between crimes that occur versus crimes that are reported to the police. In this study, we present an alternative method of identifying crime hot spots, that does not rely on official data. In doing so, we highlight the potential utility of neighborhood-insiders to identify and understand crime dynamics within geographic spaces. Specifically, we use spatial video and geo-narratives to record the crime insights of 36 police, ex-offenders, and residents of a high crime neighborhood in northeast Ohio. Spatial mentions of crime are mapped to identify participant-identified hot spots, and these are juxtaposed with calls for service (CFS) data. While there are bound to be differences between these two sources of data, we find that one location, in particular, a corner store, emerges as a hot spot for all three groups of participants. Yet it does not emerge when we examine CFS data. A closer examination of the space around this corner store and a qualitative analysis of narrative data reveal important clues as to why this store may indeed be a hot spot, but not generate disproportionate calls to the police. In short, our results suggest that researchers who rely solely on official data to study crime hot spots may risk missing some of the most dangerous places.

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