



## Hot Spots of Juvenile Crime: A Longitudinal Study of Arrest Incidents at Street Segments in Seattle, Washington

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### Summary

This study explored crime incidents of juvenile arrests across street segments in Seattle, Washington, and evaluated the extent to which juvenile crime concentrates at hot spots. The authors also examined the stability and variability of crime at the street segments over a 14 years. The study's findings suggest that officially recorded juvenile crime is heavily concentrated in certain areas of the city, with one-third of total juvenile arrests occurring in just 86 street segments in Seattle. The authors propose that by addressing a small number of street segments in the city, police and other crime prevention authorities can target a vast number of juveniles involved in crime.

### Methods

The data were acquired from Seattle Police Department reported crime data from 1989 through 2002.. The arrest reports were cross referenced with incident reports to identify crime incidents in which at least one juvenile was involved. The study examined nearly 3,000 juvenile arrest reports between the ages of 8 and 17. The authors used a group-based trajectory analysis to examine the spatial patterns of juvenile crime over 14 years. The unit of analysis used was a street segment, which is defined as the two sides of a street between two intersections. The authors displayed their data using an ArcGIS point map of the street segments in Seattle with high juvenile crime activity.

### Results

The authors found that places where juveniles congregate is likely to be a hot spot of juvenile crime. This means that area spaces such as schools, youth centers, or malls are where juveniles are more likely to engage in crime. This was due to an increased presence of unstructured socializing and limited adult supervision. The authors also determined that by using crime incidents in which a juvenile was arrested, there was a significant clustering of juvenile crime in areas where adolescents socialize like malls, community centers, and schools.

### Implications

The high proportion of juvenile arrest incidents at a small number of street segments proposes significant opportunities for law enforcement and crime prevention. Police focusing on crime hot spots may impact the neighborhood disorder without creating spatial displacement. Additionally, place managers that monitor juvenile activity spaces could prevent juvenile crime. Knowing this information gives law enforcement and outside groups additional methods to combat juvenile involvement in crime.