2.2.1 Multi-Factor Optimization of Police Presence Using An Automated GIS Tool

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As resources continue to shrink for public safety, data-driven policing strategies are dramatically increasing in popularity. DDACTS (Data-Driven Approaches to Crime and Traffic Safety) is a discipline designed to determine the optimal locations for police presence based on the multiple factors of previous criminal activity and vehicle crashes. The idea in DDACTS is to determine map sectors (e.g., square mile blocks) where crashes and crime are prevalent, and provide increased police presence in these sectors. We have developed a GIS-based tool to automate this strategy by overlaying high crime with high crash locations. In this presentation, we describe the design and implementation of this tool, and illustrate its use with actual police historical data in an Alabama city.

Bio(s):
Dana Steil is on the Computer Science faculty at Harding University. His work is in the area of GIS systems, with an emphasis on analytic support for law enforcement activity. He received his Ph.D. at The University of Alabama.