

The Geography of Risk: Crash Data Disparities in Philadelphia

Thursday, October 23, 2025 1:20 PM (20 minutes)

Vehicular crashes remain a serious public safety issue in Philadelphia County, with neighborhoods disproportionately experiencing high rates of collisions involving injury, sometimes fatal. The focus of this research will be on examining Philadelphia's High Injury Network, which are specific roads with severe crashes that are heavily concentrated. The construction of the roads that make up this network, such as the Roosevelt Boulevard in Philadelphia, often disproportionately impact communities of color.

Building on past research, analyzing the socioeconomic and historical census data to explore correlations between crash density and factors such as property values and household income, highlighting how systematic inequality may affect transportation safety. Additionally, accessing the types of vehicles involved in crashes to better understand how different modes of transportation contribute to the risk. Other factors important to look at could be biking infrastructure as well as public bus routes to see if proximity to public transit plays a role. Environmental features like tree canopy will be looked at with tools such as remote sensing and satellite imagery to see if there is an influence driving behavior. This study incorporates the Delaware Valley Regional Planning Commission's (DVRPC) Indicators of Potential Disadvantage (IPD) to evaluate equity impacts and Title VI compliance in crash distribution.

Is there a SINGLE day you are unavailable to present?

October 25, 2025

Is there a time of day you are unavailable to present?

Afternoon

Organized Session Details

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Session Classification: Student Poster Competition

Track Classification: Geographic Information Science