Mapping Transit Accident Hot Spots using MTA Accident Mapping System
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ABSTRACT TEXT: Maryland Transit Administration (MTA) has recently significantly enhanced its bus accident mapping system. The revised MTA Accident Mapping System (AMS) is expanded to include Light Rail and Metro accidents and incidents, claims information, and features enhanced filtering and reporting capabilities. Users can search and retrieve accident information based on transit mode, date/time of day, route, accident type, and incident report keyword. The application fully leverages a detailed and vital database, allowing MTA to identify accident hotspots, analyze causes and trends, and address specific concerns through driver training and other corrective measures.

The Impact of Public Transportation on Youth in Worcester
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ABSTRACT TEXT: Urban transportation infrastructures have a proven impact on the active travel of youth. Additionally, they are a key aspect of the built environment that effects perceptions of safety and belonging in an urban setting. This paper examines the relationship between transportation and the lives of youth in Worcester, MA. Data is collected through an anonymous survey of youth, focus groups with professionals in transportation and youth work, and a case study on the existing transportation system in Worcester, working towards addressing the question: How do features of the urban environment influence the transportation experiences of Worcester's youth? GIS analysis of survey themes of vulnerability and crime help inform whether the expressed anxieties of transit align with reality. This research overlays the Worcester Regional Transit Authority bus layers with Worcester crime data and applies a cluster analysis to understand the relationship between crime and the locations of bus stops in Worcester. The results of this study will be communicated to policy makers in Worcester, where it will help inform transportation policy change and the potential development of an educational outreach and youth pass and program in the city.

Using GIS to Measure the Impact of Bus Stop Location on Pedestrian Safety
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ABSTRACT TEXT: This research used GIS to identify and rank the worst bus stop locations in Broward and Palm Beach Counties in South Florida in regards to pedestrian safety. Pedestrian crash data from the Florida Department of Highway Safety and Motor Vehicles was imported into GIS and overlayed with shapefiles of the bus stop locations for Broward County Transit and Palm Tran. Analysis was limited to pedestrian crashes that occurred within 100 feet of a bus stop. All of the bus stops were then ranked using three weighted variables: the number of pedestrian crashes within 100 feet of that bus stop, the annual average daily traffic of the street at the bus stop location, and the number of bus passenger on/offs at that bus stop. Analysis of the data was done two ways. First, the narratives of the crash reports for the worst five or six bus stops in each county were read to see if there were any common trends. Second, the crash reports for all of the crashes that occurred within 100 feet a bus stop were read in order to identify how many of the reports specifically mentioned the victim being a bus patron. This part of the analysis found that only about 5% of the pedestrian crashes within 100 feet of a bus stop in Broward County and 3.6% of the pedestrian crashes within 100 feet of a bus stop in Palm Beach involved a bus patron. In absolute numbers, it was 18 of 357 crashes in Broward County and 8 of 221 crashes in Palm Beach County. In the 26 total pedestrian crashes that involved a bus patron, the most common recurring theme from the crash report was that the person was crossing at mid block or some other location outside of the designated crosswalk. This was in spite of the fact that in almost every single case there was a crosswalk in the immediate vicinity. The analysis of the Broward County data included looking at the distribution of pedestrian crashes according to bus stop configuration, and it found that it was proportional. For example, 40% of BCT bus stops in Broward County are near side stops, and 38.9% of the crashes occurred at near side stops.