

RESEARCH SUMMARY

MD 210 BEFORE AND AFTER CASE STUDY FOR SPEED MANAGEMENT PRACTICES

WHAT WAS THE NEED?

In the state of Maryland, MD 210 in Prince George's County is known as one of the most dangerous roads in the state. While several countermeasures have been installed in recent years, MD 210 continues to experience a serious safety performance issue. This project evaluated the safety impacts of lane narrowing and the installation of quick curbs with flex posts and panels.

WHAT WAS THE GOAL?

The goal of this project was to develop a robust and rigorous before/after analysis framework for traffic safety interventions. In addition to analyzing traditional traffic data sources such as vehicle probe data and crash data, this study explored the use of Michelin event data to gain deeper insights into the safety performance of MD 210.

WHAT DID THE RESEARCH TEAM DO?

This study fused multiple data sources to assess the safety performance of MD 210. These data sources included vehicle probe speed data, crash data, and Michelin event data (speeding, harsh accelerations, and harsh braking). A comprehensive analysis process was developed that included control site selection, statistical testing methods, and interpretation of results. The figure below presents a sample visualization of Michelin

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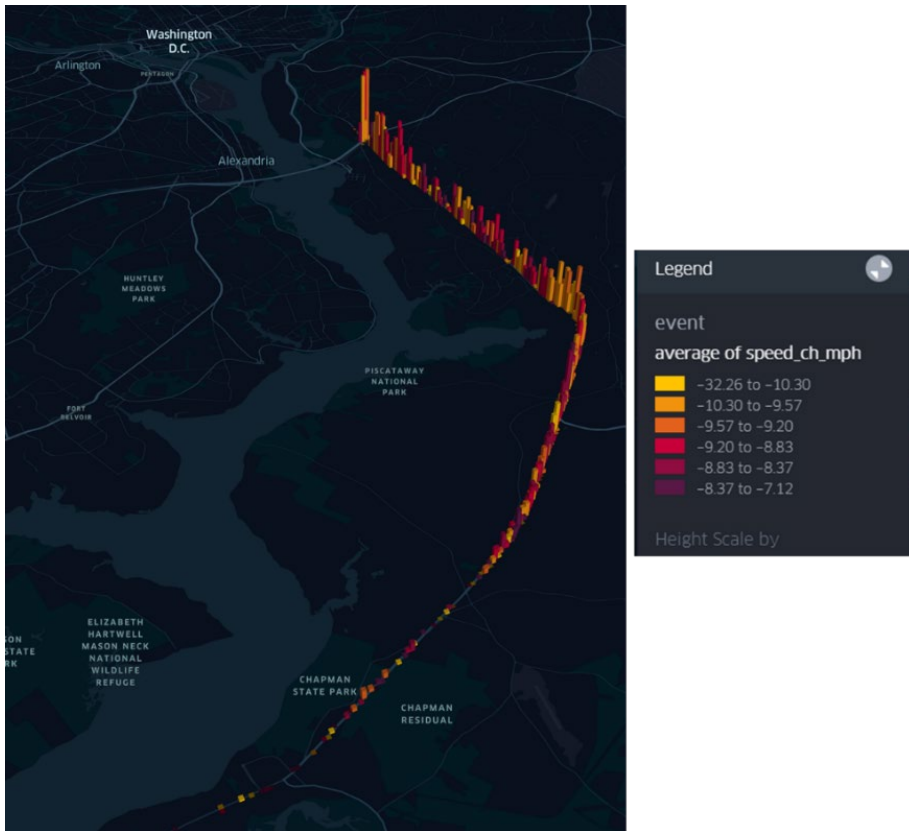
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deceleration events along the MD 210 corridor.



WHAT WAS THE OUTCOME?

This study established a comprehensive process to conduct before/after safety intervention analysis. In applying this process to the countermeasures installed on MD 210, we found that the countermeasures did not significantly impact speeds, crashes, acceleration, or deceleration events. It is worth noting that many of the countermeasures were damaged shortly following installation.

HOW WILL MDOT SHA USE THE RESULTS?

This research established a robust and rigorous analysis procedure to assess the effectiveness of any safety intervention. Future projects related to this research include the application of the methodology to other safety interventions across the state. In addition, the development of automated online tools would streamline the analysis process and promote the regular, widespread use of the analysis methods.

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