Saving Lives with Effective Data Visualization:
Evaluating the Effectiveness of Indiana's Driver Education Curriculum

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In the 21st century which is all about information, there is lots of data and less information. Studying trends, discovering knowledge, and deriving information is important, but what matters the most is how that information can be presented and visualized to add value to the business and their stakeholders. In this project, we collaborated with the Indiana Bureau of Motor Vehicles (BMV) to help them understand and evaluate the current effectiveness of their driver education curriculum being taught to various drivers. Specifically, we analyzed the effect of driver education on getting the operator licenses, what type and number of citations are seen from different age groups with or without driver education, and the impact of driver education on fatalities. We also developed a logistic regression model to provide odds-ratios of the effects of certain curriculum coverage, but only used these parameter estimates as support for what was clearer to the stakeholders – effective data visualizations. We developed the BMV Data Diagnostic tool, designed in Tableau so that they can have better visualization and understanding of the impact of Driver Education and they can take further steps to take appropriate actions with it. Using data analytics and effective data visualization we were able to get stakeholders to buy into future curriculum changes.