# TxSTORM Data Tool

## The Problem

Each year on Nov. 7, TxDOT's #EndTheStreakTX campaign raises awareness about the tragedy of daily deaths on Texas roads. Research shows the relentless toll of roadway crashes and fatalities is disproportionately higher in some communities.

## The Innovation

**Combining TxDOT crash data with socio-economic wellbeing index data:** To identify affected communities, the Traffic Safety Division's Behavioral Traffic Safety section partnered with Traffic Records Coordination Committee (TRCC)[1] representatives in the Crash Data Analysis section, along with technical advisors at the Texas Transportation Institute (TTI). TTI's socio-economic wellbeing index[2] was used to address communities with disproportionately high traffic crash and fatality rates. Texas counties were ranked by socio-economic status, then crash rates normalized by population and vehicle miles traveled (VMT) were added for each county.

**Texas State Trend Over-Representation Model (TxSTORM[3]):**

- With a population of nearly 29 million and 254 counties, Texas chose to review only those counties in the bottom half of the socio-economic wellbeing index values.
- Of the 128 remaining, the TxSTORM model was used to identify census areas with current-year crash trends against a rolling three-year average for fatal or suspected serious injury crashes (hereafter "KA crashes"). This trimmed the list of counties with possible public participation and engagement (PPE) opportunities to 62, roughly 25% of all Texas counties.
- The list was further refined to TxSTORM values that identified the crash trend as being at least twice as high as the statewide trend ("flagged" crash types). This again reduced the list of counties to 41, many including multiple communities with more than one flagged crash type.
- Of those, 21 counties included cities or towns with flagged crash types vs. unincorporated areas of the county, and three counties had more than one city or town with a flagged crash type.
- In all, 19 of the 25 TxDOT districts have at least one county on the list. All data, analysis and training materials are available on the Texas TRCC website.

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1    The **Texas Traffic Records Coordination Committee (TRCC)** plans, coordinates, and implements improvements to the State of Texas' traffic records system. The committee is comprised of representatives from the transportation, law enforcement, criminal justice, and health professions.

2    Developed in 2022 by the Texas A&M Transportation Institute (TTI), the socio-economic wellbeing index uses twelve indicators, including demographics, housing, occupation, income, and education.

3    **TxSTORM — the Texas State Trend Over-Representation Model** — is a multi-agency partnership created by the TRCC to identify crash-related trends and facilitate the efficient deployment of resources.

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**TxDOT Resources**

Texas State Trend Over-Representation Model - TxSTORM (texastrcc.org)

Texas Traffic Records Coordinating Committee (TRCC) (texastrcc.org)

TRCC Resources (texastrcc.org)

#EndTheStreakTX (txdot.gov)

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**Aligned with these TxDOT Goals**
-  Focus on the customer
-  Promote safety

**Contact**
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## The Benefits

- Ability to identify rural and metro communities with disproportionately high roadway crash and fatality rates using aggregated data from the previous three years to "flag" jurisdictions with trend over-representation.
- Ability to prioritize "flagged" jurisdictions with a high Relative Impact Value (RIVAL) score, which indicates a greater need for countermeasures and resources relative to other jurisdictions or the state overall.
- Data-driven, evidence-based decision making helps address the causes contributing to trend over-representation and improves targeting of preventive measures, tailored interventions, and resources in the emphasis areas identified in each TxDOT district.