



Florida Department of Transportation

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2017 Highway Safety Matrix

Purpose: The county and city matrices were designed to provide traffic safety planners an objective, data-driven tool to rank traffic safety projects. Both counties and cities are divided into three population groups. The numbers in each matrix represents where counties or cities rank within their population group in a particular program area, with “1” representing the worst crash rate, as described below. For example, the “1” next to Hillsborough indicates they are ranked 1st in impaired driving serious injury and fatality crashes among the 24 counties in Group I. The top 20% is highlighted in each population group by program area.

Note that despite the reduction in serious injury and fatal crashes occurring over the past several years, the range of numbers appearing in the matrix does not change, because counties and cities are being compared to each other on a relative basis.

Measures used: The rankings in the county and city matrices are based on rates of serious injuries plus fatalities over a five-year period; in this case FY 2017 rankings reflect 2010-2014 data. County and City matrices are based on total actuals. Inmate populations are excluded in the calculations.

Specific measures for each column in the matrix are as follows:

- **Serious Injuries and Fatalities** – overall serious injuries plus fatalities
- **Drivers 65+** – serious injuries plus fatalities among older drivers, excluding bicyclists and motorcyclists
- **Impaired Driving** – includes serious injuries plus fatalities for both Driving Under the Influence and crashes where drinking was a contributing circumstance
- **Motorcycle Related** – motorcycle-related serious injuries and fatalities
- **Occupant Protection** – serious injuries plus fatalities among drivers and passengers who were both not using safety equipment and were subject to the seat belt law
- **Pedestrian or Bicyclist Related** – pedestrian-related or bicyclist-related serious injuries plus fatalities
- **Speed or Aggressive Driving Related** – speed-related serious injuries plus fatalities or serious injuries plus fatalities in crashes where two or more of certain moving violations (includes careless driving, improper passing, and several others) were cited
- **Teen Drivers** – serious injuries plus fatalities among drivers aged 15-19, excluding bicyclists and motorcyclists.

Impaired, speed, and aggressive driving are treated as causal factors, so that all individual serious injuries and fatalities involved in a single crash are counted. On the other hand, bicyclists, motorcyclists, pedestrians, drivers aged 15-19 or 65+, and individuals not using seat belts are only counted once per crash in the appropriate area.

Data Sources: FDOT's CAR database was used as the data source in the county and city matrices for serious injuries and fatalities. The University of Florida, Bureau of Economic and Business Research, was used as the source for population estimates to group counties and cities.

Subjectivity of crash data used: It is important to realize that some of the measures cited above are more subjective than others. Serious Injuries and Fatalities, Drivers 65+, Motorcycle Related, Pedestrian or Bicyclist Related, and Teen Drivers categories are relatively objective, as they are only based on crash victims. The other areas are all dependent on how thorough investigating officers are in documenting crash circumstances. It is quite likely there could be differences among jurisdictions in this regard.

Other data limitations: County rankings are based on crashes occurring both inside and outside cities and municipalities and may involve different investigating agencies, including the Florida Highway Patrol, which does much of the enforcement in rural areas.

City crashes are much more subject to errors involving location. In some instances, crash investigators either are unaware of their exact location or write down the wrong Florida Department of Highway Safety and Motor Vehicles city-code. The FDOT State Safety Office's Crash Records Section identifies many of the location errors made on state roads. These corrections are reflected in crashes in the CAR database, but many errors can remain.

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