FDOT

Florida Department of Transportation

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FY2019 Highway Safety Matrix

<u>Purpose</u>: 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 represent where each county or city ranks within their population group in a particular program area, with "1" representing the highest fatality and serious injury volume, as described below. For example, the "1" next to Broward county indicates they are ranked 1st in Aging Road Users serious injuries and fatalities among the 25 counties in Group I. The top 25% are highlighted in each population group by program area.

Note that despite the increase in serious injury and fatal crashes occurring over the past several years, the range of numbers appearing in the matrix does not change. This is because counties and cities are being compared to each other on a relative basis and the number shown is a ranking and not an actual count.

<u>Measures used</u>: The rankings in the county and city matrices are based on volume of serious injuries plus fatalities over a five-year period; in this case FY 2019 rankings reflect 2012-2016 data. County and City matrices are based on total actual counts. Inmate populations are excluded from the population counts.

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

- **Aging Road Users (Drivers 65+)** – serious injuries plus fatalities occurring as a result of crashes in which at least one driver involved was age 65 or older at the time of the crash

- **Distracted Driving** – serious injuries plus fatalities occurring as a result of crashes in which at least one driver was coded as distracted

- **Impaired Driving** – serious injuries plus fatalities occurring as a result of crashes in which at least one driver was coded as either having a positive blood alcohol content, a positive drug test result, or in which a driver refused to be tested for alcohol or drugs

- **Motorcyclists** – serious injuries plus fatalities of drivers and passengers of a motorcycle (does not include moped)

- **Occupant Protection** – serious injuries plus fatalities of drivers and passengers of a vehicle other than a motorcycle, moped, or ATV who were coded as not using restraint system

- **Pedestrian or Bicyclist** – serious injuries plus fatalities of pedestrians or bicyclists

- **Speed or Aggressive Driving** – serious injuries plus fatalities occurring as a result of crashes in which at least one driver involved was coded with driver actions related to speeding (any single action) or aggressive driving (two or more of certain moving violations, such as careless driving, improper passing, and several others)

- **Teen Drivers** – serious injuries plus fatalities occurring as a result of crashes in which at least one driver involved was aged 15-19

- **Work Zones** – serious injuries plus fatalities occurring as a result of crashes which were coded as work zone related

Distracted driving, potentially impaired driving, speeding and aggressive driving, younger or older drivers and work zones are treated as potential causal factors, so that all individual serious injuries and fatalities involved in a single crash are counted. On the other hand, bicyclists, motorcyclists, pedestrians and individuals not using a restraint system (safety belts and child seats) are only counted once in the appropriate area.

Data sources: The Florida Department of Transportation's (FDOT) Crash Analysis Reporting (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 (BEBR), 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, Aging Road Users (Drivers 65+), Motorcycle Related, Pedestrian or Bicyclist Related, and Teen Drivers categories are relatively objective, as they are only based on simple vehicle or person characteristics. 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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