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of Transportation
**Federal Highway
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Memorandum

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Subject: **INFORMATION:** 2021 Update to
Focused Approach to Safety

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In Reply Refer To:
HSST

To: Division Administrators
Directors of Field Services
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Since 2004, FHWA has used the Focused Approach to Safety (FAS) to identify areas of opportunity and to offer priority assistance to select Focus States toward reducing fatalities and serious injuries on the Nation's highways. Periodically, the FAS is adjusted and updated based on current data and program evaluation. The FAS was last updated in 2015; this memo describes the changes made for 2021 and lists the new Focus States for each focus area.

Update Process

For the 2021 update, data from the Fatality Analysis Reporting System (FARS), summary information from the state Strategic Highway Safety Plan (SHSP) database, and data from the U.S. Census and FHWA Highway Statistics were used. The FARS data covered the most recent available six-year period (2014-2019), and Census and Highway Statistics data were matched to those years. Previously established [FHWA focus area definitions](#) informed the data analysis. The update process consisted mainly of two parts: 1) a review and determination of focus areas, and 2) the screening and selection of Focus States.

Focus Area Review

Past iterations of the FAS have consistently featured the following focus areas: roadway departure, intersections and pedestrians/bicyclists (combined). For this update, fatalities and other road safety data were examined from several perspectives in order to reconsider, review, and select appropriate focus areas.

An extensive examination of fatalities through crash tree diagramming, along with the SHSP database information, confirmed that roadway departure, intersection, pedestrian, and bicyclist fatalities continue to be predominant crash categories associated with fatalities in the U.S., with eighty-six percent (86%) of traffic related fatalities accounted for in these areas for the given analysis period. Additional facts about these focus areas include:

- Fifty percent (50%) are related to roadway departure.
- Twenty-seven percent (27%) are related to intersections.
- Sixteen percent (16%) are pedestrians.
- Three percent (3%) are bicyclists.

Therefore, FHWA determined that these should continue as the four focus areas, and to treat pedestrians and bicyclists separately. Additionally, the focus area review identified other areas that warrant attention, but not as separate focus areas. Those areas, referred to as emphasis areas, are speed management and two-lane rural roadways. These are expected to receive special attention within the focus areas, as appropriate. Speed management is an emphasis area for each of the four focus areas, and two-lane rural roadways is an emphasis area for only the roadway departure focus area. As part of technical assistance to the focus states, we will explore the state-specific circumstances and contributing factors associated with the focus area(s).

Screening and Selection Process

As with previous updates to the FAS, this update developed and used a new approach to selecting candidate Focus States. For the first time for an FAS update, negative binomial regression models were used to evaluate safety performance in each of the safety focus areas. This is the methodology used for many of the safety performance functions in the AASHTO Highway Safety Manual. For each focus area category, the number of fatalities in each state for each of the six years was matched with the corresponding state exposure metric value to establish the statistical relationship.

Multiple models were created for each focus area using either travel exposure (vehicle miles traveled, miles-walked or miles-bicycled) or population. The travel exposure and population regression models were then used as benchmarks to determine if the average observed fatalities in each state are greater or lesser than would be predicted for the given exposure metric.

Using the observed and modeled data, FHWA developed metrics and established screening thresholds. The intent was to identify consistent overrepresentation based on the data. These metrics include “Fatalities Delta”, “Fatalities Ratio” and “Fatalities Equity”, as shown in Table 1.

- The Fatalities Delta metric is the calculated difference between the average observed fatalities and the predicted fatalities. The Fatalities Delta can be positive or negative, with positive values indicating that observed fatalities were greater than predicted. The Fatalities Delta threshold was set at 20.
- The Fatalities Ratio metric is calculated as the ratio of the average observed fatalities to the predicted fatalities. The Fatalities Ratio must be greater than zero, and can be more than or less than 1, with ratios greater than 1 indicating that the observed fatalities are greater than predicted. The Fatalities Ratio threshold was set at 1.1.

- The Fatalities Equity metric – either Equity Proportion or Equity Ratio – serves as a means to identify and account for disparities in fatality outcomes based on race and ethnicity. The Fatalities Equity metric informs whether Persons of Color, as described in [Executive Order 13985](#), are disproportionately represented in the observed fatalities in a given state for each focus area. The Fatalities Equity threshold was set at the Median Average Value (for the respective focus area) for Proportion and 1.0 for Ratio.

Table 1. Focus Area Metrics

Metric	Threshold
Fatalities Delta	≥ 20 fatalities (at least 20 more than predicted)
Fatalities Ratio	≥ 1.1 (at least 10% higher than predicted)
Fatalities Equity	Equity Proportion > Median Average Value (out of 50 states, DC, and PR) <u>OR</u> Equity Ratio > 1

States that met or exceeded all three of the metric thresholds were identified as potential Focus States. Based on this screening approach, there are 16 unique Focus States, in contrast to 25 from the 2015 update. The resulting Focus States by focus area are listed in Table 2, indicated by an “X”. If a State is not listed in this table, it is not a Focus State for this 2021 update.

Table 2. Focus States by Focus Area

State	Roadway Departure	Intersections	Pedestrians	Bicyclists
Alabama	X			
Arizona		X	X	
California			X	X
Colorado		X		
Florida		X	X	X
Louisiana	X	X	X	
Mississippi	X			
Montana	X			
Nevada		X	X	
New Mexico			X	
North Carolina	X			
Oklahoma	X			
Puerto Rico			X	
South Carolina	X	X	X	
Texas	X		X	
Wyoming	X			

These 16 States represent fifty-one percent (51%) of all traffic related fatalities that occurred in the United States during the analysis period.

As it concerns Focus States, there is one additional noteworthy change for this 2021 update. Compared to the 2015 FAS update, a different approach was utilized for identifying potential local public agency stakeholders. For this update, similar modeling and analyses were conducted at a regional level using Census metropolitan statistical area boundaries and/or metropolitan planning organization (MPO) boundaries. Within the intersections, pedestrians and bicyclists focus areas, there may also be MPOs/regions that are overrepresented based on similar metrics. These MPOs/regions are listed in Table 3, indicated by an “X”. Note that where “Greater <name> Region” is used it refers to the Census-based metropolitan area and is inclusive of all MPOs in that region. If an MPO/Region is not listed here, it was not identified as overrepresented for these focus areas. This analysis was not conducted for roadway departure because it is predominantly a rural challenge.

Table 3. Focus Area MPOs/Regions

State	MPO/Region	Intersections	Pedestrians	Bicyclists
Arizona	Maricopa Association of Governments	X	X	
Arizona	Pima Association of Governments	X		
California	Kern Council of Governments		X	
California	Sacramento Area Council of Governments		X	
California	San Diego Association of Governments		X	
California	San Joaquin Council of Governments		X	
California	Southern California Association of Governments		X	X
Colorado	Denver Regional Council of Governments	X		
Florida	Greater Cape Coral/ Naples Region	X		
Florida	Greater Miami Region	X	X	X
Florida	Greater Orlando Region	X	X	X
Florida	Greater Pensacola Region		X	
Florida	Greater Sarasota Region	X		
Florida	Greater Tampa/St. Petersburg Region	X	X	X
Florida	Heartland Regional Transportation Planning Organization	X		
Florida	North Florida Transportation Planning Organization	X	X	
Florida	Polk County Transportation Planning Organization	X		
Florida	River to Sea Transportation Planning Organization	X		
New Mexico	Mid-Region Council of Governments		X	
Nevada	Regional Transportation Commission of Southern Nevada	X	X	
Puerto Rico	Puerto Rico Metropolitan Planning Organization		X	
South Carolina	Grand-Strand Area Transportation Study	X		
Texas	Alamo Area Metropolitan Planning Organization		X	

Tailored Technical Assistance and Monitoring

As with past iterations of the FAS, FHWA will offer priority access to assistance through several different options, such as:

- focus area countermeasure/strategy implementation evaluation, guided self-assessments and maturity-capability reviews;
- data analysis, action plan development and technical support from initiation to implementation;
- training in several formats, including in-person or virtual workshops, webinars, and various training materials;
- ongoing support for a wide range of safety program activities, including data collection, analysis tools and countermeasures.

FHWA subject matter experts for the focus areas and our Division Office staff will discuss with and provide to the Focus States technical assistance that is instrumental in reducing fatalities and serious injuries in the specific focus area.

Further information on the Focused Approach to Safety is available on the Office of Safety's website: <http://www.safety.fhwa.dot.gov/fas/>. If you have questions regarding the Focused Approach to Safety, please contact Jeffrey Shaw, Office of Safety Technologies, at jeffrey.shaw@dot.gov or (202) 738-7793.

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