

September 2019

Highway Safety Plan FY 2020 Alabama

Highway Safety Plan

NATIONAL PRIORITY SAFETY PROGRAM INCENTIVE GRANTS - The State applied for the following incentive grants:

S. 405(b) Occupant Protection: **Yes**

S. 405(e) Distracted Driving: **No**

S. 405(c) State Traffic Safety Information System Improvements: **Yes**

S. 405(f) Motorcyclist Safety Grants: **Yes**

S. 405(d) Impaired Driving Countermeasures: **Yes**

S. 405(g) State Graduated Driver Licensing Incentive: **No**

S. 405(d) Alcohol-Ignition Interlock Law: **No**

S. 405(h) Nonmotorized Safety: **No**

S. 405(d) 24-7 Sobriety Programs: **No**

S. 1906 Racial Profiling Data Collection: **No**

Highway safety planning process

Data Sources and Processes

Enter description of the data sources and processes used by the State to identify its highway safety problems, describe its highway safety performance measures, establish its performance targets, and develop and select evidence-based countermeasure strategies and projects to address its problems and achieve its performance targets.

1. Identification of Highway Safety Problems.

The State of Alabama has a comprehensive, evidence-based enforcement plan that encompasses all traffic safety program areas. This section gives the steps of the planning and problem identification processes applied by the Alabama Office of Highway Safety (AOHS) in creating its Highway Safety Plan (HSP). The following outlines the procedures that are followed in developing the countermeasure programs that are included in the HSP:

1. A general problem identification is initiated as soon as the close out of the previous year's state crash data is completed, usually in the April-May time frame.
2. The most current year of data after the close out is combined with the previous two years of data in order to have three years of crash data to perform the problem identification. Research has shown that three years is an optimal time span for predicting future hotspots.
3. Hotspot analyses are run for the major subjects of interest, in this case speed, impaired driving and lack of seatbelt use using the Critical Analysis Reporting System (CARE).
4. From these analyses, it becomes quite clear as to where the critical locations are as well as the answer to the more general who, what, where, when, how old and why questions to address how these crashes can best be addressed.
5. To assure that the Community Traffic Safety Project/Law Enforcement Liaison (CTSP/LEL) Coordinators are thoroughly involved in this process, they are required to submit their plans in the April-May time frame, at about the same time as the statewide problem identification is being performed. The submitted plans include feedback on previous years' efforts in their respective areas.
6. These plans are then combined to produce the specific action items that are implemented.

The HSP is completely evidence-based, as demonstrated by the results of the problem identification steps documented. AOHS does recognize there are many excellent countermeasure programs that are in need of funding. For example, it is recognized that fatalities are caused by many factors other than speed, impaired driving and lack of proper restraints.

However, optimality demands that the limited resources available be applied to those areas that have the maximum fatality-reduction potential. According to the analysis of state crash data from 2018, these "top three" issues demonstrate the greatest crash elimination and severity-reduction potentials for fatal and severe injury crashes. However, even if all the goals for these various programs are met, there will still be an intolerably high death and injury toll, and the State embraces all the principles of the national Toward Zero Deaths (TZD) effort.

AOHS uses the CARE system to develop a complete listing and mapping of problem crash locations (or hotspots) throughout the state. In addition to a breakdown by CTSP/LEL regions and State Trooper posts, the results are also subdivided by crash type and roadway classification. This is because different agencies may deal with different roadway classifications, and different tactics may be applied to the different types of crashes. In addition, all agencies have access to the preliminary statewide plan. By providing both statewide and specific information to each area, the regional coordinators can identify the problems and locations in their region, and they can also determine how these locations relate to the statewide plan.

Once this information is provided to the CTSP/LEL Coordinators, they are instructed to focus their grant applications for the coming year on the hotspot locations given in the reports for their region. Other issues presented in their applications are reviewed by AOHS staff to assure integrity and consistency among the regions. Once the grants are awarded, the enforcement programs are continuously evaluated, and any necessary adjustments are made throughout the fiscal year. The implementation of the Evidence-Based Enforcement Plan is demonstrated below in the following sections by major issue areas:

1. Impaired driving and speed related crash hotspots – 402 funds
2. Alcohol- and drug-related crashes hotspots – 405d funds
3. Restraint-deficient hotspots – 405b funds

Media campaigns are also conducted alongside high visibility enforcement campaigns. The value of such integrated enforcement efforts is demonstrated by studies referenced in Page 1-24 of NHTSA Countermeasures that Work, the URL reference:

Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices, Ninth Edition, 2017

https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812478_v5_countermeasures-that-work-a-highway-safety-countermeasures-guide-9thedition-2017.pdf

2. Process for developing Highway Safety Performance Measures and Targets

Performance measures and targets development has been a process initiated by AOHS more than a decade ago and updated annually as the traffic safety picture has changed. The AOHS staff review provided data and develop and select evidence-based countermeasure strategies and specific projects to address problem areas and to achieve performance targets.

Grant funds are allocated to the regions based on an assessment of their needs in terms of reducing the problems identified in their respective regions. Specific projects involving the state CTSPs will be largely focused on the problem locations discussed and defined in Hotspot Listings presented below. In addition, AOHS will continue participation in national programs,

such as the “Click It or Ticket” and “Drive Sober or Get Pulled Over” campaigns. Generally, funding is allocated to each region based on the percentage of hotspots in the region. AOHS continues to pledge its support to these programs and will fund the participating regions and agencies accordingly.

There are several items of consideration that are essential to the understanding of the rationale for the performance measures and targets that are discussed in this as well as the following subsections. Many of the items below impact several of the performance measures. The following list presents considerations for the rationale for deriving the performance measures and targets for these various items:

Baselines for Analysis and Agreement. Generally, the baselines for the estimates were calculated from the most recent five years of data. This can be seen from the data that demonstrate the metrics over the past five available calendar years (2014-2018). Items C-1, C-2 and C-3a used the identical methodology as was approved in the coordination meetings with ALDOT in order to keep these goals consistent with the safety goals required by FHWA. **Goals for C-1, C-2, and C-3a were mutually agreed upon by the Alabama Office of Highway Safety, the Strategic Highway Safety Plan Steering Committee and the Highway Safety Improvement Plan Committee.**

Distinction between Data and Estimates. The shaded areas in all graphs represent the projected estimated number *assuming that the established trend as given by a linear regression line over the previous known values continues*. The first projected year is not shaded as heavily as the “out” years in order to convey an idea for the reliability of the projection. Clearly, the further out that an estimate is projected, the less reliable will be the projection.

Accounting for Extrapolation Errors. Extrapolating from a limited number of past values can lead to extreme errors, especially since the last FARS value that we have in most cases is 2017, requiring (for example) that the estimates of 2018, 2019 and 2020 all be based on an extrapolation of 2013 through 2017. (Unless otherwise noted, all references to years of data are calendar years.) Rarely, if ever, does such a linear trend establish an accurate prediction, especially in crash data where it is commonly accepted that *regression to the mean* follows most dramatic departures (positive or negative) from the established trend. Nevertheless, these estimates are presented since they provide the *best data* upon which to make and refine the estimates.

All fatality count metrics. Item 3 above is particularly applicable for any metric that is dependent on fatality counts. Consistent with the national trend, Alabama experienced almost a 23% reduction in fatalities between 2007 and 2010 compared to the average of the previous four years. Because of several economic factors (price of fuel and alcoholic beverages, reduction in driving by high-risk groups, reduction in speeds for fuel conservation, and several other well-established factors), the typical regression to the mean did not occur in the 2011-2013 time frame. However, it was experienced in 2014, 2015 and especially in 2016 as the economy rebounded. Any trend line that includes

fatality counts prior to 2008 will obviously produce a down trend that is clearly not feasible to maintain by traffic safety countermeasures alone. Thus, the data chosen for the five-year trend and the baseline will go back no further than 2010 for the current estimates. Even this generally produces a very optimistic projection, and since the state has been urged to be aggressive (but not unrealistic) in setting goals, they will generally be somewhere between the projected trend line point for 2020 and the baseline. In the past, notable exceptions to these general patterns were observed in motorcycle and pedestrian fatalities; motorcycle and pedestrian fatalities are discussed as separate items in this list below.

Severe injury count metrics. The considerations above for fatality counts also apply to severe injuries, and so the rationale for the estimates for severe injury counts follow this same pattern. However, there is another very important factor at work for the state's severe injury counts that is critical to note. In July 2009 the state generally (with the exception of only about 15% of the reports at that time) went to a different definition of severe injury (also called "A" injury). In the FY 2017 HSP, the C-2 graph showed a precipitous drop between 2008 and 2010 caused largely by this reporting anomaly. It was determined prior to setting any goals or performance metrics for FY2018 that no A injury statistics prior to 2011 would be used in the calculations. This should hold for FY2020 estimating process as well.

Motorcycle fatalities. The rationale regarding fatality trends in general (given above in Item 4) does not apply to motorcycle fatalities. There are two reasons for this: (1) the same economic forces that reduce fatalities in general work in just the opposite way when it comes to the use of motorcycles, i.e., they become a much more attractive mode of transportation because of the combined economic factors; and (2) because of this and the aging of the motorcycle-driving population in general, more and more motorcyclists are of a higher age and thus less able to survive a severe injury. For this reason, it should be expected that the sustainment of a goal slightly below the 85 baseline would be a realistic goal.

Seat belt use. The projection for 2020 is based upon the five-year rolling average that includes the new method for estimating seat belt used as prescribed by NHTSA.

Five-year average goals. Most of the crash related goals are set differently from years prior to 2014. Analysis concluded that since we were basing estimates on five-year averages, it would not be correct to predict a given one-year estimate. Thus, the goals given are generally for the five-year average that will be computed at the end of 2020. The graphs below display the five-year rolling averages: however, the numbers listed above the charts are the single year number for each year.

Pedestrian fatalities. Pedestrian fatalities have two contributing aspects: (1) the situation that brings the pedestrian into an inevitable crash by a motor vehicle, and (2) the ability of the pedestrian to take preventive action even when that collision cannot be avoided. To evaluate the effect of this second subtle (and usually ignored) factor, a comparison was

made between those cases in which the pedestrian was killed and those in which the pedestrian was only injured. It was definitively shown that those who were killed were far more likely to be the subjects of impaired walking: on average they had 8 times the drug use indicators and twice the alcohol use indicators. Time of day also validated alcohol and drug use. There is no indicator on the form if the pedestrian was on a cell phone, texting or otherwise distracted. However, it seems clear that when such is the case, the pedestrian will be more apt to be caught by surprise and thus will not take last minute remedial action to protect themselves.

Distracted Driving (DD) and walking. While distracted driving has not been broken out as a separate subject for setting a target, it has become quite clear that it is playing a major part in causing crashes in conjunction with several other causal factors. NHTSA estimates on the percentage of fatality crashes caused by DD currently stand at 10%, but these estimates have been growing over the past five years. While Alabama's *reported* 43 DD fatal crashes in 2018 are below this estimate, it seems clear that this is a reporting issue for this new attribute on the crash report form, and it is expected to grow as officers become more accustomed to recognizing and reporting it. It should be recognized that DD is embedded within many of the other crash types, and in particular: youth risk taking, speed, impaired driving and pedestrian fatalities (see above). For items 9 and 10, see CAPS special study on pedestrians on SHA:

<http://www.safehomealabama.gov/wp-content/uploads/2019/01/Pedestrian-IMPACT-Study-v08.pdf>

DUI Drugs and Alcohol. A recent study by GHSA has confirmed that drug use (including prescription drugs and illegal drugs, e.g., marijuana) have overcome alcohol as the major cause for impaired driving (nationally). This trend should be alarming to all traffic safety professionals in that the cultural acceptance of the use of marijuana is a reality even in states like Alabama, where its use is not legal. It also signals with it the reversal in any previous stigma with regard to other drugs. Further, this trend is just in its infancy with the recent legalization of the "recreational use" of marijuana in several other states. The problem is greatly exacerbated by the fact that there is no simple test equivalent to the alcohol portable BAC test units, nor are there any standards that are analogous to the 0.08 % BAC, and thus no practical way for law enforcement officers to determine technically if a driver is inebriated by marijuana. The combination of alcohol and additional combinations of drugs are highly problematic. With the difficulty in identifying drugs, there can be little doubt that the reported use/abuse of alcohol and drugs is significantly under-reported.

See: <http://www.safehomealabama.gov/wp-content/uploads/2019/05/SS-Impaired-Driving-2014-2018-v08.pdf>

Assumption for all goals - excluding C-1: Number of Traffic Fatalities (FARS), C-2: Number of Severe Injuries in Traffic Crashes (State crash data files – most severe category: "A" Injuries), and C-3a: Total Fatality Rate/VMT (FARS/FHWA).

Alabama experienced a minor increase in fatalities in 2015 and then a major increase in fatalities in 2016. Although the crash trends declined slightly in 2017 and 2018 compared to 2016, our baseline includes the lower totals from 2013, 2014 and 2015. The decision was made to project the 2016-2018 performance measure levels into 2019 and 2020, and to base the targets on that data. The rationale for this is that if we can maintain the 2016-2018 performance measure levels rather than seeing any further increases, this progress will be significant. A similar rationale was used for severe injuries. Some preliminary State data indicates that severe injuries are still on the upward trend.

Assumptions for goals C-1, C-2, and C-3a. The reasoning behind the slight upward trend in fatalities 2016-2018 has to do with the leveraging effect that slight economic changes have on drivers involved in the greater proportion of fatality crashes, namely, risk takers (especially younger drivers), drivers of older vehicles, impaired drivers, and those who fail to use proper restraints. The reasoning behind this has to do with the continued growth in the Alabama economy that will result in a drop in the unemployment rate, currently estimated at 3.9%. Increases will also likely occur related to population increases and increases in disposable income. These trends will be reinforced by vehicle fleet improvements and other ancillary effects, and thus, the fatalities will likely be expected to increase as the economy continues to improve. The same approach used to project five-year rolling averages for the fatality number and rate was also applied to calculate the number of severe injuries, where the same proportionate increase was applied. This rationale for expected increases is supported by the following:

IIHS Status Report Vol 52, No. 3, May 25, 2017.

AL.Com news report “Alabama’s April Unemployment Rate Lowest since 2008” May 19, 2007.

Montgomery Advertiser, “Alabama unemployment rate ticks up, remains below 4%” May 17, 2019

3. Evidence-Based Countermeasure Strategies/Projects

The state has developed an Evidence-Based Enforcement (E-BE) plan to determine enforcement activity locations based on high-risk hotspots. These hotspots are identified according to criteria based on injury severity and the particular type of crash for which enforcement is being directed. These hotspots are then communicated to the Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) coordinators for each of the state’s traffic safety regions. It is the responsibility of the CTSP/LELs to facilitate both regular and special enforcement programs within their respective regions. This response will continue with a discussion of the analyses performed, the deployment of resources, and the process for continuous follow-up and improvement.

The highest level of problem identification analysis is given by Table 1, which will be given a detailed explanation in the response to “State’s overall highway safety problems” response

below. At that point it will be seen that Table 1 identifies the most critical issues to be the following three items: (1) Restraint Deficient; (2) Impaired Driving and (3) Speeding. The first of these is the primary cause of increased injury severity in crashes. The second and third are crash causes, although speed can be both a cause and a severity increase. Impaired Driving is often highly correlated with both restraint deficiency and higher impact speeds. Thus, there is ample justification for considering these three simultaneously.

The following was the procedure employed to generate the hotspots that provided the basis for implementing the data driven approach for E-BE:

1. Crashes that were in either the Speed or Impaired Driving category were identified and locations with the highest numbers of these crashes (particularly the severe crashes) were included in a list;
2. Locations were defined by specific criteria depending on roadway classification;
3. CARE identified hotspots in four major categories: (1) Interstate, (2) Federal and State Routes, (3) non-mileposted intersections (for Impaired Driving Crashes only) and (4) non-mileposted segments;
4. The list was prioritized by crash frequency severity;
5. Those areas in which it was found that seat belt non-use was highest were also isolated for seat belt enforcement.

These hotspots that were defined, listed and mapped are presented below.

Each of the four regional coordinators use these specifications as the basis for their plans for the upcoming year. Their data were formatted in the same way as the statewide reports but only included information on hotspots specific to the given region. While Interstate hotspots are covered by ALEA, the CTSP Coordinators were provided copies of the Interstate hotspots for their information. The reports provided on a regional basis are as follows:

1. Regional Fatalities Bar Graph
2. Top Speeding Related Mileposted State/Federal Route Crashes Map for Region
3. Top Speeding Related Mileposted State/Federal Route Crashes Listing for Region
4. Top Impaired Driving Related Mileposted State/Federal Route Crashes Map for Region
5. Top Impaired Driving Related Mileposted State/Federal Route Crashes Listing for Region
6. Top Impaired Driving Related Non-Mileposted Intersection Crashes Listing for Region
7. Top Speeding Related Non-Mileposted Segment Crashes Listing for Region
8. Top Impaired Driving Related Non-Mileposted Segment Crashes Listing for Region

Generally, each ALEA region receives a package of information that is formatted just like the statewide results, but tailored to their particular region or roadway subset. All law enforcement agencies also have access to the statewide plan, and they are instructed to focus their E-BE details for the upcoming year on the hotspot locations. If any issues are raised at this point in the

planning process, they are resolved by AOHS staff to assure integrity and consistency among the regions

The effective allocation of resources will lead to an increased reduction in the number of hotspots within the next year on both a statewide level and within each individual region. That is, given that the total number of crashes remains relatively stable, the concentration of efforts at the hotspots will reduce crashes at those locations so that they may no longer be defined as hotspots in the following year. Ideally, it would be the goal to eliminate hotspots defined by the previous year's criteria altogether. With this goal in mind, funding is determined for each region based on the percentage of hotspots in that region. There is also a consideration of the percentage of alcohol, restraint, and speed crash issues that are present within each region. Federal funds distributed by the AOHS are used to focus completely on the high crash areas within each region.

Law enforcement agencies use saturation patrols, line patrols, checkpoints, and regular patrol in order for the E-BE projects to be effective. The enforcement activities and techniques that are used include:

1. Conduct four local hotspot Evidence-Based Enforcement (E-BE) projects, one within each of the CTSP regions.
2. Conduct a statewide E-BE project in conjunction with the Alabama Law Enforcement Agency (ALEA).
3. Continue to require the CTSP Coordinators to conduct selective enforcement efforts that focus their plans on hotspot locations identified by the data analyses provided for their respective regions.
4. Participate in the national "Click It or Ticket" Campaign on the statewide level.
5. Conduct a statewide "Drive Sober or Get Pulled Over" Campaign in conjunction with the national campaign.
6. Conduct sustained E-BE for impaired driving, speeding, and seat belts throughout the year.

The enforcement efforts are accompanied by PI&E campaigns that incorporate advertising, bonus spots, website links, and support of government agencies, and local coalitions in an effort to impact restraint usage. This part of the campaign consists of:

1. Development of marketing approach based on Nielsen and Arbitron ratings and targeted primarily towards the 18-34 male age group.
2. Placement of paid ads on broadcast television, cable television, digital ads, and radio in addition to public service spots. Paid advertising will be placed primarily in the five largest media markets.
3. Management of public relations efforts including press releases and special media events to stimulate media coverage and alert the public to the campaign.
4. In addition to the paid and free media, the AOHS website will have updated information including ads, articles and other information pertaining to the seat belt campaigns.
5. Each CTSP/LEL Coordinator will be responsible for generating sustained earned media in their area of the state throughout the year. The CTSP/LEL Coordinators are also

responsible for developing press releases and conducting press events that are specifically targeted to their regions.

AOHS monitors law enforcement agencies' activity reports to determine if adjustments are needed for their plans. When activity reports are received, they are assessed against the latest crash data to identify successful crash reductions in targeted locations, as well as new areas of risk that may be developing. This results in E-BE enforcement programs being continuously evaluated and the necessary adjustments being made. Follow-up is conducted with agencies to address any lack of performance issues or activities. Adjustments are made to the HSP annually based on the problem identification that include the enforcement plans.

Processes Participants

Identify the participants in the processes (e.g., highway safety committees, program stakeholders, community and constituent groups).

AOHS recognizes that traffic safety cannot be limited to one agency or even a few. It is a joint effort involving many key partnerships throughout the state. In addition to AOHS, these includes the following partners along with their general responsibilities:

1. Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Coordinators – employed in the field as an arm of the AOHS, these individuals live and have offices within their respective regions, and build ongoing relationships with local and state level law enforcement as well as all other traffic safety stakeholders in the local communities who serve that region.
2. Alabama Law Enforcement Agency (ALEA) – this agency is responsible for all state-level law enforcement activities. This includes most enforcement on the state and county route system as well as the support for the many computer systems that they have used in the past and currently, such as eCrash and eCite, the state's electronic crash and citation systems.
3. Alabama Department of Transportation (ALDOT) – strong coordination among the traffic safety efforts between ADECA and ALDOT is stimulated by the monthly sponsored Safety Outreach Meetings hosted by ALDOT. ADECA works quite closely with ALDOT in the development of common traffic safety performance measures and goals, which is a requirement of the Strategic Highway Safety Plan (SHSP).
4. Strategic Highway Safety Plan (SHSP) Steering Committee – which also brings involvement and close concurrence with ALDOT and the following Federal agencies:
 1. Federal Highway Administration (FHWA)
 2. Federal Motor Carrier Safety Administration (FMCSA)
 3. National Highway Traffic Safety Administration (NHTSA)
5. Alabama Department of Public Health – providing data and information technology expertise for EMSIS and trauma data integration and use.
6. Local law enforcement – including city police and county sheriffs, these partners are essential to all statewide and local enforcement programs.
7. Media – providing continued support to inform the public of all selective enforcement and other initiatives.
8. Traffic Records Coordinating Committee – a broad based committee that represents all developers and users of traffic safety information systems.

9. State and local District Attorneys – involved to increase their level of readiness and proficiency for the effective prosecution of traffic related cases.
10. Alabama Impaired Driving Prevention Council (AIDPC) - assembled by AOHS to develop and approve the Impaired Driving Strategic plan and to assure that all aspects of the impaired driving problem are considered and as many alternative countermeasures as possible are evaluated. The council has representation from agencies and organizations with a working knowledge and deep understanding of the various parts of Alabama’s impaired driving prevention system and how the parts interrelate.
11. The University of Alabama Center for Advanced Public Safety (UA-CAPS) – a sister state quasi-research agency that provides the information foundation from crash, citation, EMS runs and other databases. See: <http://www.caps.ua.edu>

Description of Highway Safety Problems

Enter description and analysis of the State’s overall highway safety problems as identified through an analysis of data, including but not limited to fatality, injury, enforcement, and judicial data, to be used as a basis for setting performance targets, selecting countermeasure strategies, and developing projects.

1. Summary of Crash Severity by Crash Type (Table 1)

Beginning in 2010 it was determined that a tool should be established to enable decision makers to view the state’s traffic safety issues at the highest possible level. This tool was named “Table 1” and it appears below. It was reasoned that, all other things being equal, traffic safety resource allocations should go to address those issues that cause the greatest number of fatalities. While this is a good default position to start from, all other things are rarely equal, and optimal resource allocations must also take into account the cost of the countermeasures being considered and the proportion of the crashes that can reasonably be reduced by any given countermeasure. Thus, an item with a lower number of fatalities could become optimal to address if a lower cost countermeasure would reduce a larger number of its crashes.

The eCrash system that went into effect July 1, 2009 creates data that meets most of the Model Minimum Uniform Crash Criteria (MMUCC). It provides data that are much timelier, since in many cases these reports are available the same day as the crash. Careful work was done to ensure that no variables or codes that could indicate a particular crash category of Table 1 were missed, and that the search criteria captured all of the crashes for each of the particular categories for this evidence-based analysis.

There are no limitations on the various subjects that may be added for consideration in Table 1, and all SHSP participants are encouraged to add any categories that they feel are appropriate. Distracted Driving (DD) was the most recently added for the FY 2018 HSP. The category with the highest number of fatal crashes is listed at the top of Table 1, descending to the crash type category with the lowest number of fatal crashes listed last. The number and percent of crashes by severity are listed for each category (see footnote for the exception of “restraint deficient”). This enables an easy comparison between the various crash types. It is important to realize that the categories of Table 1 are not mutually exclusive. However, since this is true in all of the

categories, these numbers serve to give the relative criticality of the particular categories that most often are the targets for funding or other resource allocations.

Table 1: Top Fatality Causes Alabama CY2018 Data

Crash Type (Causal Driver)	Fatal Number	Fatal %	Injuries	Injury %	PDO No.	PDO %	Total
Seat Belt Restraint Fault*	372	3.67%	4,073	40.14%	5,703	56.20%	10,148
Speed Involved	199	1.94%	3,259	31.85%	6,774	66.20%	10,232
ID/DUI All Substances	169	3.05%	2,135	38.59%	3,228	58.35%	5,532
Hit Obstacle on Roadside	124	1.87%	2,126	32.14%	4,365	65.99%	6,615
Ped., Bicycle, School Bus	117	7.04%	939	56.53%	605	36.42%	1,661
Fail to Yield or Ran (All)	114	0.37%	7,676	24.92%	23,010	74.71%	30,800
Mature (65 or Older) Causal	112	0.75%	3,249	21.76%	11,567	77.49%	14,928
Pedestrian Involved	106	13.97%	621	81.82%	32	4.22%	759

License Deficiency Causal	103	1.59%	2,018	31.22%	4,342	67.18%	6,463
Wrong Way Items	99	2.10%	1,042	22.06%	3,582	75.84%	4,723
Youth (16-20) Causal Driver	86	0.37%	5,110	21.91%	18,129	77.72%	23,325
Motorcycle Involved	76	4.93%	1,065	69.02%	402	26.05%	1,543
Aggressive Operation	70	2.44%	856	29.89%	1,938	67.67%	2,864
Distracted Driving	43	0.29%	3,208	21.93%	11,380	77.78%	14,631
Drowsy Driving	38	1.05%	1,383	38.04%	2,215	60.92%	3,636
Large Truck Involved	36	0.52%	1,432	20.49%	5,521	79.00%	6,989
Utility Pole	29	1.15%	877	34.90%	1,607	63.95%	2,513
Work Zone Related	27	0.72%	770	20.50%	2,959	78.78%	3,756
Vehicle Defects – All	12	0.36%	690	20.70%	2,631	78.94%	3,333
Vision Obscured	10	0.84%	320	26.87%	861	72.29%	1,191
Bicycle	9	3.53%	206	80.78%	40	15.69%	255

Railroad Trains	4	7.69%	23	44.23%	25	48.08%	52
Child Restraint Fault*	4	0.84%	207	43.49%	265	55.67%	476
Roadway Defects – All	3	2.34%	28	21.88%	97	75.78%	128
School Bus Involved	2	0.31%	112	17.31%	533	82.38%	647

* All categories list number of crashes except for the “Seat Belt Restraint Fault” and “Child Restraint Fault” categories. The restraint categories cannot accurately be measured by number of crashes so they list number of unrestrained persons for each severity classification.

The comparison of gross fatality and injury counts is merely a first step in the analytical process to find optimal allocations of resources among programs. Obtaining this first-cut perspective is essential for intelligent decision-making. Once the high-level decisions are made regarding which of the crash types will be addressed, further analyses must be performed to define countermeasures and improve their implementation. The severity classification in Table 1 also helps in this regard. For example, it might be noticed that the relative severity percentage of pedestrian, bicycle, motorcycle and railroad crashes are significantly higher than the other categories, as is true for the top three categories as well. This is an important aspect to be considered when the ultimate goal is reducing deaths.

2. Procedure for the Problem Identification

The overall problem identification for the Alabama Highway Safety Plan (HSP) begins with the most recently generated data for Table 1. This arranges crash types by the number of fatalities and sets a priority if in fact, “all other things were equal.” But all other things are not equal, and further analysis is needed to account for countermeasure effectiveness and cost. Nevertheless, Table 1 effectively gives everyone in the traffic safety community a high level view of the source of fatalities as well as how these fatalities are reflected in the lower severity crashes.

Two entries in Table 1 are important with regard to the Occupant Protection Plan. The following defines these two entries:

1. Restraint-Deficient Crashes (RD) – any crash in which one or more of the occupants of any involved vehicle (including drivers) were not properly restrained; and

2. Child Restraint-Deficient Crashes (CRD) – any crash in which one or more children who are subject to child restraint laws were not properly restrained, independent of the restraint characteristics of the other occupants.

Clearly RD is at the top of this list, demonstrating that occupant restraint is one of the most critical issues in traffic safety and fatality reduction. Child Restraint Deficiencies (CRD) are near the bottom of Table 1 with only five fatalities. This reflects the extreme efforts that have gone into child protection by several agencies throughout the state. Special emphasis is given to children who are quite vulnerable if not properly restrained, and the importance of maintaining all of the child restraint programs is clear. The enforcement efforts for CRD is effectively the same as that for RD.

Table 1 shows clearly that one of the most effective ways of reducing fatalities is to increase restraint use, and this example will be used to further illustrate the problem identification process that is applied to all potential countermeasures. In reading through this example, please do not restrict consideration to only seatbelts, but recognize how the same principles apply to all countermeasures under consideration. See references at end of this section.

The next step in the problem identification process is to analyze the data for these crashes and determine all the demographics related to them (e.g., the who, what, where, when, how, how old, and the “why” of crashes involving non-restrained occupants). The goal is to (1) determine the most effective countermeasures that can be applied, and once these are defined, (2) identify the best tactics to be applied within each.

This starts by determining those types of crashes that were going to be targeted for occupant protection countermeasure implementation. For example, a recent study determined a very strong correlation between Restraint Deficiencies (RD) and other risky driving characteristics. In particular, DUI (alcohol and other drugs) and speed were correlated with non-use, and younger drivers 16-25 were particularly vulnerable. Young drivers are particularly susceptible to risk taking behaviors since the part of their brain that properly assesses risk is not fully developed until age 25. While the average seatbelt use rate for all occupants has been measured above 90%, for those involved in fatal crashes the use rate was approximately 45%.

(See Fatalities at <http://www.safehomealabama.gov/PlansAnalysis/FARSandALFatalities.aspx>)

Evidence-based enforcement (E-BE) has been determined to be one of the most effective methods for increasing restraint use in general. This requires that specific locations be identified where there were concentrations of crashes involving unrestrained occupants. Once these hotspots are defined using the Critical Analysis Reporting Environment (CARE) software, the Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Coordinators across the state are given information on the hotspot locations for the state as a whole. They were also provided detailed hotspot reports specific to their region to assist them in focusing their area efforts. Using the reports and maps developed for each region, the CTSP/LEL Coordinators

develop plans, including the time schedule and work assignments, for their respective regions that focuses on the hotspot locations.

3. Definitions for Table 1 – Description of Categories

The purpose of these narrative descriptions is to give the non-technical user of Table 1 a simple description of each of the items so that they can better be used to make comparisons that are essential to effective resource allocations among the various categories. It is expected that these simple descriptions will become part of that section of the HSP that contains Table 1.

Unless otherwise indicated, the counts presented by Table 1 are Crashes. Exceptions are crash categories 1 and 19, restraint items. These two exceptions are for restraints, and an asterisk (*) is placed on these items for the footnote that describes the reason for the exception (see Table 1 in Appendix B).

The descriptions below are given largely in terms of the Table 1 item numbers that were used in the FY2019 HSP, modified if needed by the new upgrades. A brief rationale will be given for each category so that its use can be placed into a real-world context. The ordering within the current Table 1 is in terms of the number of fatalities that were calculated for each category. This numbering will change in all future Table 1 versions due to the changes in the number of fatal crashes counted within each.

The following are brief descriptions of the various items within Table 1. For a more formal and definitive definition, see the appendices. There has been no attempt whatsoever to make these categories mutually exclusive. It is easy to imagine crashes that might include five to ten of the categories simultaneously. Users of Table 1 will need to apply their knowledge of traffic crashes to estimate which of the multiple causes might be the primary cause for the fatalities indicated.

The following are the descriptions of the categories in Table 1:

1. Seatbelt Restraint Fault*

This item records those restraint faults (generally non-use, but could be improper use) of restraint that have been found to generally result in an increase in those who are not properly restrained. It covers drivers and all occupants of age 6 and older. Those aged less than 6 are covered in Category 19, Child Restraint Fault.

2. Hit Obstacle on Roadside

This item includes crashes where the vehicle ran off the road and struck an object on the roadside, restricted to obstacles for which the responsible agency would have some capability to either remove or otherwise mitigate the hazard.

3. ID/DUI All Substances

This item includes all crashes in which either alcohol or any other drug was indicated to be involved in the crash.

4. Speed Involved

This item includes all crashes in which speed was indicated to be a factor, which is generally indicated as “Over Speed Limit.”

5. Pedestrian, Bicycle and School Bus

This filter is obsolete and is in the table now as just a place holder. Its original intention was to be a metric of younger schoolchildren involvement, but each of its constituents now has its own category.

6. Pedestrian Involved

This item includes all crashes that involved pedestrians in any way, independent of whether or not the pedestrian was the cause of the crash. See comment under Motorcycle Involvement, Category 9.

7. Mature – Age > 65 Caused

This item includes all crashes in which the causal driver was of age greater than 65 (i.e., 66 or older).

8. License Status Deficiency

This item includes all crashes in which the causal driver had one or more of the following driver license status deficiencies: Denied, Expired, Fraudulent, Revoked, and/or Suspended. It serves as an indicator as to whether the change of license status has a significant effect on the crash expectations of those drivers involved.

9. Large Truck Involved

Generally, this covers all trucks larger than the typical pickup truck. The attempt here is to concentrate on the size of the truck as opposed to its function or whether it is a CMV or not (some will be; others are not). For specific details, see the filter below. See comment under Motorcycle Involvement, Category 9.

10. Fail to Yield or “Ran” (All)

This is a new item that includes all subcategories of Failure to Yield the Right-of-Way and “Ran xxx,” such as “Ran a Stop Sign” or “Ran a Traffic Signal.” The reporting of just one or a small subset of these did not seem to be warranted since the underlying cause of such behavior is the same regardless of where it manifests itself. Since this category has changed considerably from the past, we will give the total specification for it:

Ran Traffic Signal

Ran Stop Sign

Failed to Yield Right-of-Way from/to ...

Traffic Signal

Stop Sign

Yield Sign

Making Left or U-Turn

Making Right Turn

Making Right Turn on Red Signal

from Driveway

from Parked Position

at Uncontrolled Intersection

to Pedestrian in Crosswalk

Failed to Yield the Right-of-Way (stated unqualified)

Other Failed to Yield

11. Youth Age 16-20 Caused

This item includes all crashes caused by drivers of age 16-20 inclusive.

12. Aggressive Operation

This code is indicated by officers when there are two or more PCCs that are relevant and thus the indication is that the driver was under some psychological stress to disregard several safety considerations simultaneously.

13. Wrong Way Items

All crashes where the causal vehicle is in a lane for oncoming traffic; this includes median crossovers and also lane departures into oncoming traffic on two-lane roads. It also includes violations in no-passing zones, since these offenses would put the causal driver into oncoming traffic lanes.

14. Motorcycle Involved

This item is for those crashes in which a motorcycle was involved either as the causal or the second unit in the crash.

General comment on vehicle type involvement. Discussions were conducted as to whether categories that involved vehicle types should be those “involved” or those “caused by.” It was determined that countermeasures to these crashes could, and in some cases should, impact vehicles that are not of the category type. Thus, it was felt that all crashes in which they were involved should be included, and not just those caused by the specific vehicle type. This applies to all categories that are defined by a vehicle type, including pedestrians.

15. Distracted Driving

Many different things tend to distract drivers, and this item is an attempt to count all of them. These would include distracted by: Passenger; Use of Electronic Communication Device; Use of Other Electronic Device; Fallen Object; Fatigued/Asleep; Insect/Reptile; Other Distraction Inside the Vehicle; and/or Other Distraction Outside the Vehicle. Of these Fatigued/Asleep is redundant with Drowsy Driving (see 16). For purposes of analysis, it is being left in this list to be consistent with the way it is reported on the crash report. It should be noted that Drowsy Driving may include items of fatigue and sleep that are not within the Distracted Driving category. See Category 16, which is a new category added for the most recent upgrade.

16. Drowsy Driving

This item includes any and all indications that the driver or drivers were drowsy or falling asleep.

17. Utility Pole

There are many roadside obstacles that are struck by vehicles that run off the road. These are broken out since utility poles are obstacles that are of special interest to utility companies.

18. Vehicle Defects (All)

This includes all reportable vehicle defects, namely: Brakes, Steering, Tire Blowout/Separation, Improper Tread Depth, Wheels, Wipers, Windows/Windshield, Mirrors, Trailer Hitch/Coupling, Power Train, Fuel System, Exhaust, Headlights, Tail Lights, Turn Signal, Suspension, Cruise Control, Body/Doors, and Other, Paper Report Archive that are no longer reported in eCrash include: Tires, Lights, Restraint System, and Cargo.

19. Workzone Related

There are about ten locations within a workzone in which a crash can be specified to have been located. This item includes any or all of them. The workzone does not need to be a cause of the crash in any way; the crash just needs to be located in or adjacent to the workzone.

20. Vision Obscured

This covers the following situations in which vision might be obscured by something in the roadway or its environment.

C408: CU Vision Obscured By

- Trees/Crops

- Buildings

- Embankment

- Sign/Billboard

- E Lights/Glare (Roadside)

- Hillcrest

Curve in Road

Rationale: the vision obstructions listed are those that can be addressed by engineering types of countermeasures and thus exclude items of a temporary nature, such as obstructions caused by weather conditions. Roadway related obstructions are also included.

21. Child Restraint Fault*

This includes the child passengers aged 5 or younger who were not properly restrained.

22. Bicycle (Pedalcycle) Involved

This is all crashes in which a pedalcycle (mostly bicycles) were involved independent of who caused the crashes. See comment under Motorcycle Involvement, Category 9.

23. Railroad Train Involved

This counts the number of crashes in which a railroad train was involved independent of who may have caused the crashes. See comment under Motorcycle Involvement, Category 9.

24. School Bus Involved

This is the number of crashes that involved a school bus independent of the causal unit. See comment under Motorcycle Involvement, Category 9.

25. Contributing Roadway Defects

Any crash where a roadway defect was noted as a Contributing Circumstance in any of the following: C015, C202 or C542 (PCC, CUCC and V2 Contributing Circumstance is equal to either:

- 1 E Roadway/Sign/Signal Defect; or
- 2 P Roadway Defect

Methods for Project Selection

Enter discussion of the methods for project selection (e.g., constituent outreach, public meetings, solicitation of proposals).

The goal of Alabama project selection approach is to create the safest surface transportation system possible, using comparable metrics from other states in the Southeast to assess progress in maintaining continuous recognizable improvement. Its primary ideals are to save the most lives and reduce the most suffering possible. The approach to project selection is to apply an *evidence-based* approach that draws upon detailed problem identification efforts to quantify and compare alternatives that are given within the NHTSA document *Countermeasures That Work*. Over the years the primary focus has evolved to implementing an Evidence-Based Enforcement (E-BE), concentrating on enforcement with special emphasis on speed reduction, impaired driving elimination and increasing the use of restraints; using data that are centered around the hotspot analyses performed for each of these countermeasure subject areas.

The approach toward implementing this approach involves a concentration on the necessity for a cooperative effort that involves teamwork and diversity, including all organizations and individuals within the state who have traffic safety interests, many of which were given above. The focus of crash reduction countermeasures is on the locations with the highest potential for severe crash frequency and severity reduction, as identified for speed and impaired driving, which were the largest two causes of fatal crashes, and for restraint non-use, which is the greatest factor causing increased crash severity.

There are a number of approaches used in the *evidence-based* project selection, some of which are outlined as follows:

1. Compare similar results from year to year from the data that is used to drive the countermeasure selections. For example, similar hot-spot analyses are performed from year to year to determine the changes in the crash statistics as well as the correlated demographics. This quantifies both improvements and setbacks.
2. If the indications are that a program implemented in the previous fiscal year fell short of its intended target, analyses are performed to determine the various causes in terms of continual improvement in the future.
3. If it is determined that a specific program was particularly successful, then its characteristics are studied to determine if they can be applied or even reinforced in future efforts.
4. For new countermeasures, at the highest level, evaluate alternative overall countermeasure strategies and select the ones that will best solve the problem.
5. Once new countermeasures are resolved, use further analytical techniques to fine-tune those that have been selected for implementation. For example, the highest level might resolve that selective enforcement and PI&E are the superior countermeasure types to employ, while the second level would establish the specific locations and media markets to implement these countermeasures.

Project selection involves refining the performance measure targets each year. At the same time, evidence-based countermeasure strategies and specific projects to address problem areas and to achieve performance targets are developed and selected.

The AOHS planning process follows the timeline below:

1. December- Annual Report (AR) is prepared and submitted to NHTSA. The AR serves as a key evaluation tool in determining the effectiveness of planned activities and individual projects.
2. February-March- AOHS collects up to date state data from CAPS to determine hot spots in the CTSP regions. This analysis helps determine funding levels and percentages for enforcement campaigns, as well as helps evaluate and identify emerging issues.
3. March- Results from data analysis and countermeasure selection are presented to project directors at the Quarterly Project meeting. Once this information is communicated, the involved agencies and potential subrecipients are given the application deadline.
4. May- Grant applications are submitted.

5. May-July- Applications are reviewed and recommended by AOHS for funding. AOHS also prepares the Highway Safety Plan for NHTSA.
6. July 1- Submit Highway Safety Plan to NHTSA.
7. October 1- Grant year begins

AOHS does not have a formal grant selection committee to oversee the submission and approval of project proposals outside of office staff. Rather, AOHS fully utilizes the year-round interactions and meetings with traffic safety stakeholders and committees to identify how the state can work together to address issues in a coordinated way. For example, the AOHS meets quarterly with the AIDPC and TRCC to stay informed on actions different organizations are taking throughout the state to address Impaired Driving and Traffic Records issues, respectively. These meetings allow for communication and collaboration amongst the different organizations and agencies' jurisdictions on current and emerging issues. For further details of meetings and interactions with other traffic safety stakeholders, please reference Section 2 of the Highway Safety Planning Process.

List of Information and Data Sources

Enter list of information and data sources consulted.

The following data sources are listed in order of the amount of use of each source:

1. Crash data from the Alabama eCrash system.
2. Citation data from the Alabama eCite system.
3. FARS data for fatal crashes, from NHTSA.
4. Traffic volume trends from FHWA Office of Highway Policy Information.
5. Transportation Economic Trends 2017, Bureau of Transportation Statistics.
6. AASHTO Traffic Volume Trends.

Description of Outcomes

Enter description of the outcomes from the coordination of the Highway Safety Plan (HSP), data collection, and information systems with the State Strategic Highway Safety Plan (SHSP).

In addition to AOHS, the programs implemented receive extensive review and recommendations by those who developed the state's Strategic Highway Safety Plan (SHSP). The overall performance measures and targets set in the SHSP for the State of Alabama are complementary to, and consistent with, those developed by AOHS. Over the past several years, the AOHS Highway Safety Plans (HSP), including Table 1, have been incorporated into the SHSP, which is mandated by FHWA and the FAST Act. This reflects the statewide agreement with the targets and approaches being taken by AOHS in the use of Table 1 as a planning tool at the highest levels. These targets were set by AOHS using FARS and CARE crash data. In those cases where the goals had to be consistent with the SHSP and the HSIP, the appropriate ALDOT officials were involved in assuring the concurrence among the three documents.

AOHS has worked collectively with ALDOT in performance measures development and target setting for the common goals of the HSP, SHSP and the Highway Safety Improvement Plan

(HSIP). The common goals were mutually accepted by the Alabama Office of Highway Safety, the Strategic Highway Safety Plan steering committee and the Highway Safety Improvement Plan committee. The major goals of both the HSP and the SHSP are to bring about the most effective and coordinated statewide allocation of traffic safety resources possible, including funding, equipment, and personnel.

Performance report

Progress towards meeting State performance targets from the previous fiscal year's HSP

Sort Order	Performance measure name	Progress
1	C-1) Number of traffic fatalities (FARS)	In Progress
2	C-2) Number of serious injuries in traffic crashes (State crash data files)	In Progress
3	C-3) Fatalities/VMT (FARS, FHWA)	In Progress
4	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	In Progress
5	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	In Progress
6	C-6) Number of speeding-related fatalities (FARS)	In Progress
7	C-7) Number of motorcyclist fatalities (FARS)	In Progress
8	C-8) Number of unhelmeted motorcyclist fatalities (FARS)	In Progress
9	C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)	In Progress
10	C-10) Number of pedestrian fatalities (FARS)	In Progress
11	C-11) Number of bicyclists fatalities (FARS)	In Progress
12	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	In Progress

Performance Measure: C-1) Number of traffic fatalities (FARS)

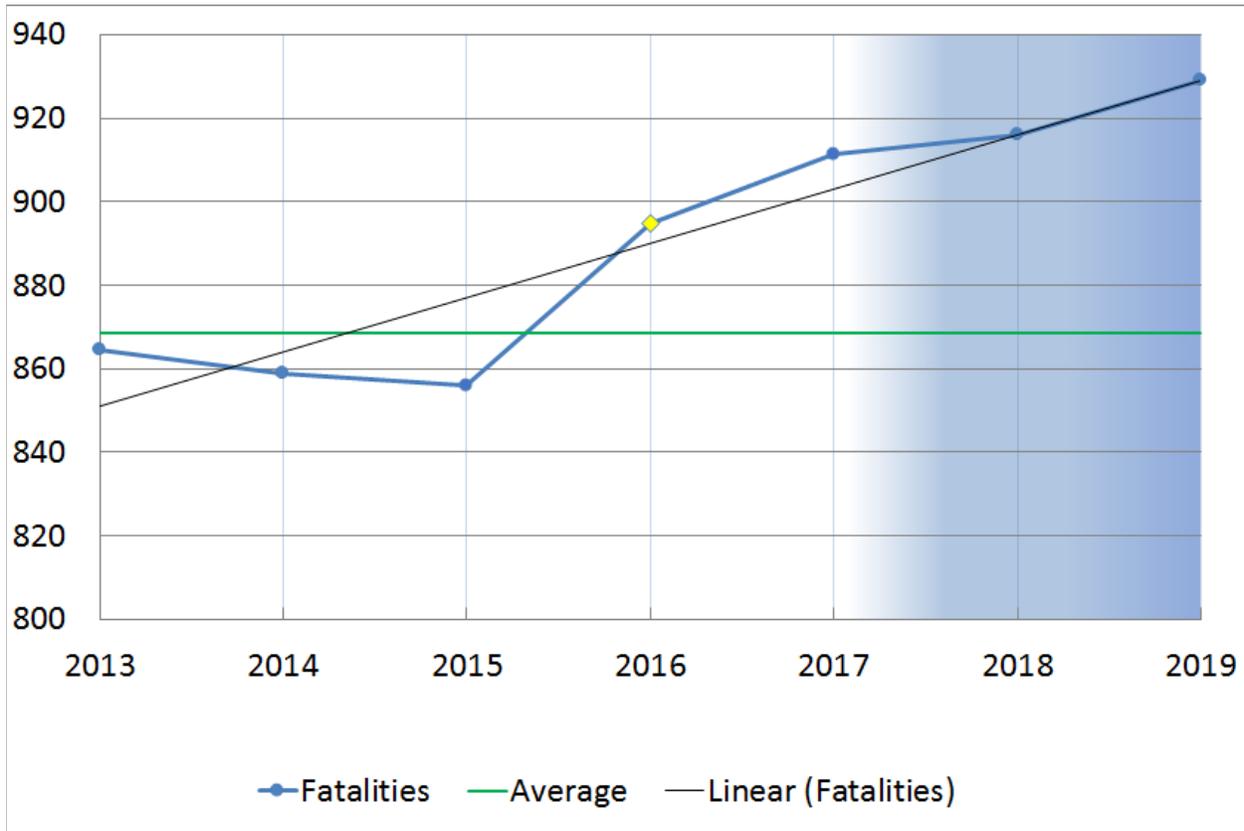
Progress: **In Progress**

Program-Area-Level Report

Based on analysis of previous 5-year averages and trends in more recent state crash data, AOHS has projected a realistic goal to not allow Number of Traffic Fatalities to increase more than 5.31% percent from the five-year baseline average of 885 (2012-2016) to 932 by 2019. **This goal**

was mutually agreed upon by the Alabama Office of Highway Safety, the Strategic Highway Safety Plan steering committee and the Highway Safety Improvement Plan committee. The five year average (2013 to 2017) number of fatalities in traffic crashes for 2018 is 911. The goal is in progress to be achieved.

5 Year Rolling Averages of Traffic Fatalities



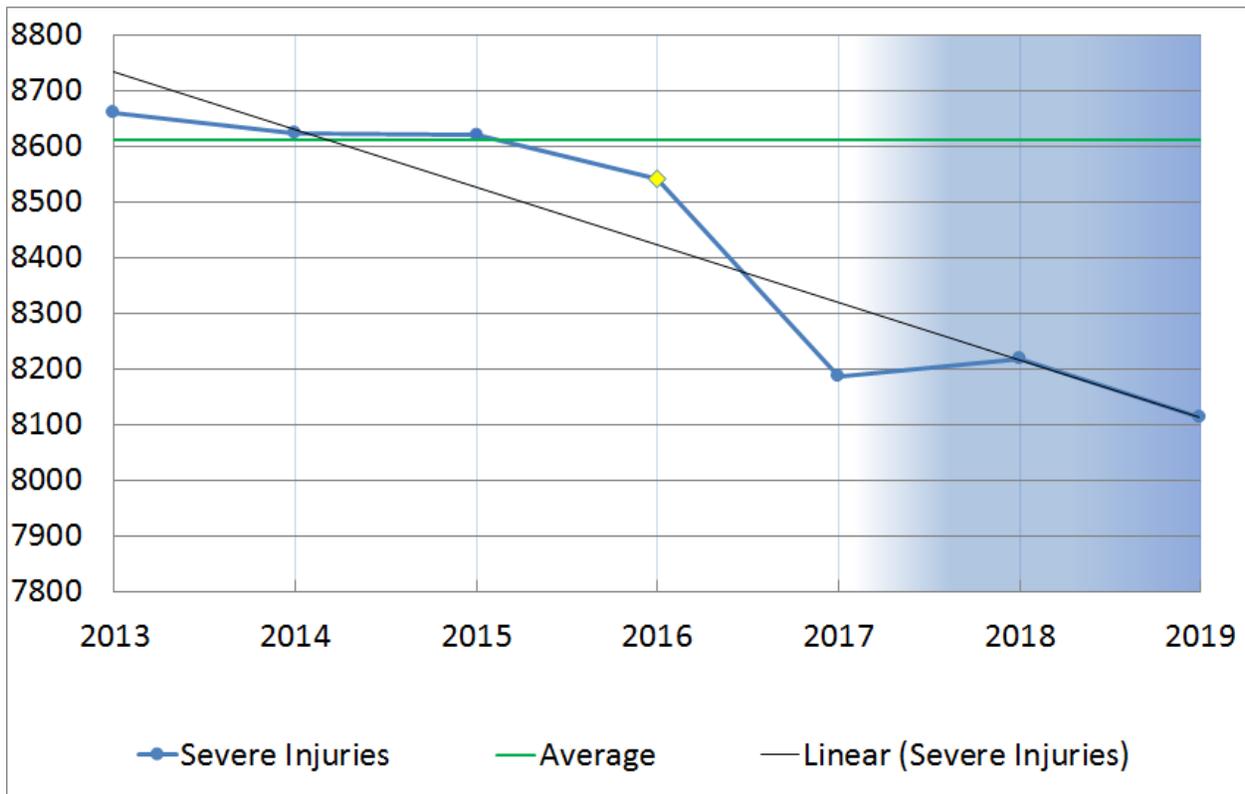
Performance Measure: C-2) Number of serious injuries in traffic crashes (State crash data files)

Progress: **In Progress**

Program-Area-Level Report

Based on analysis of previous 5-year averages and trends in more recent state crash data, AOHS has projected a realistic goal to reduce Number of Severe injuries in Traffic Crashes by .85 percent from the five year baseline average of 8,542 (2012-2016) to 8,469 by 2019. **This goal was mutually agreed upon by the Alabama Office of Highway Safety, the Strategic Highway Safety Plan steering committee and the Highway Safety Improvement Plan committee.** The five year average (2013 to 2017) number of serious injuries in traffic crashes for 2018 is 8,437. The goal is in progress to being achieved.

5-Year Rolling Averages of Severe Injuries



Performance Measure: C-3) Fatalities/VMT (FARS, FHWA)

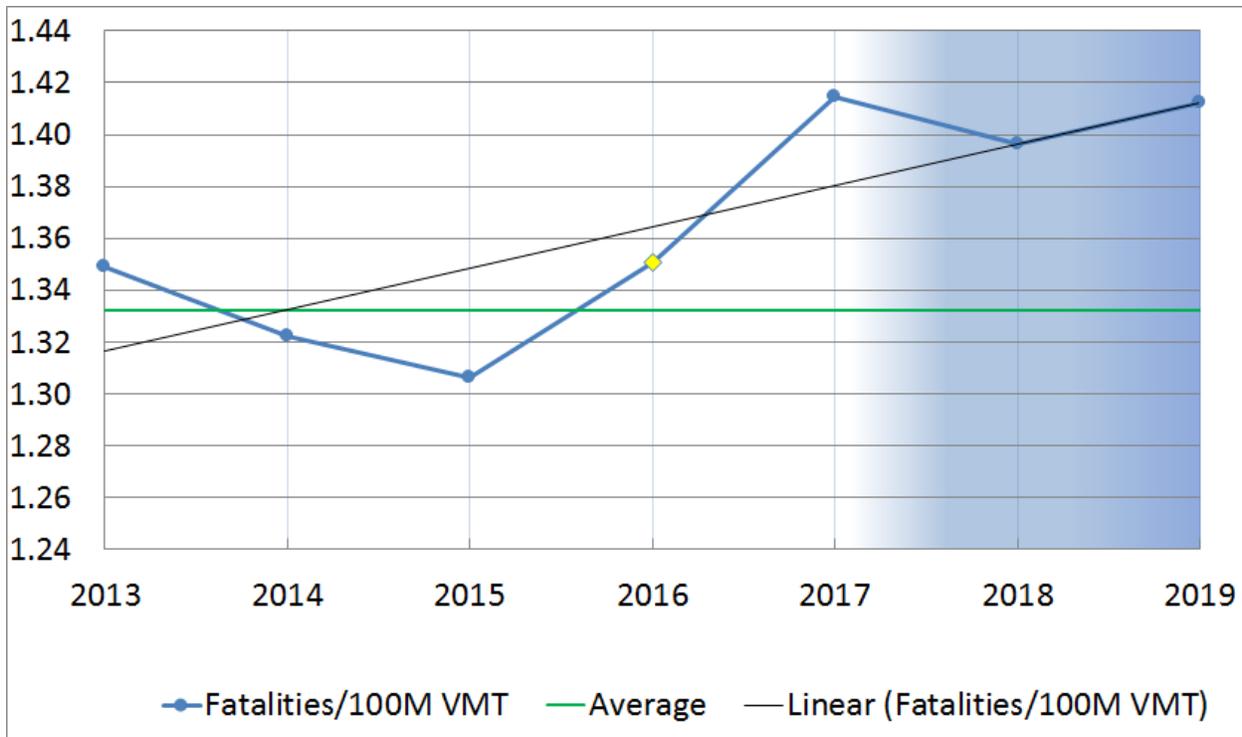
Progress: **In Progress**

Program-Area-Level Report

Based on analysis of previous 5-year averages and trends in more recent state crash data, AOHS has projected a realistic goal to reduce Total Fatality Rate/VMT by 1.48 percent from the five-year baseline average of 1.35 (2012-2016) to 1.33 by 2019. **This goal was mutually agreed upon by the Alabama Office of Highway Safety, the Strategic Highway Safety Plan steering committee and the Highway Safety Improvement Plan committee.** This goal reflects the realizations that fatal crashes in general have increased from a recent low of 820 in 2014 to 849 in 2015, and 1,088 in 2016. It is based on an assumption that VMT will increase by 1% per year, which is consistent with recent years. The rate goal was based on projected data to stem the recent increases in fatal crashes, with a view of reversing it in the coming years.

The five year average (2012-2016) fatality rate for 2018 is 1.35. The goal is on not track to being achieved.

5-Year Rolling Averages of Total Fatalities/100 MVMT



Performance Measure: C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)

Progress: **In Progress**

Program-Area-Level Report

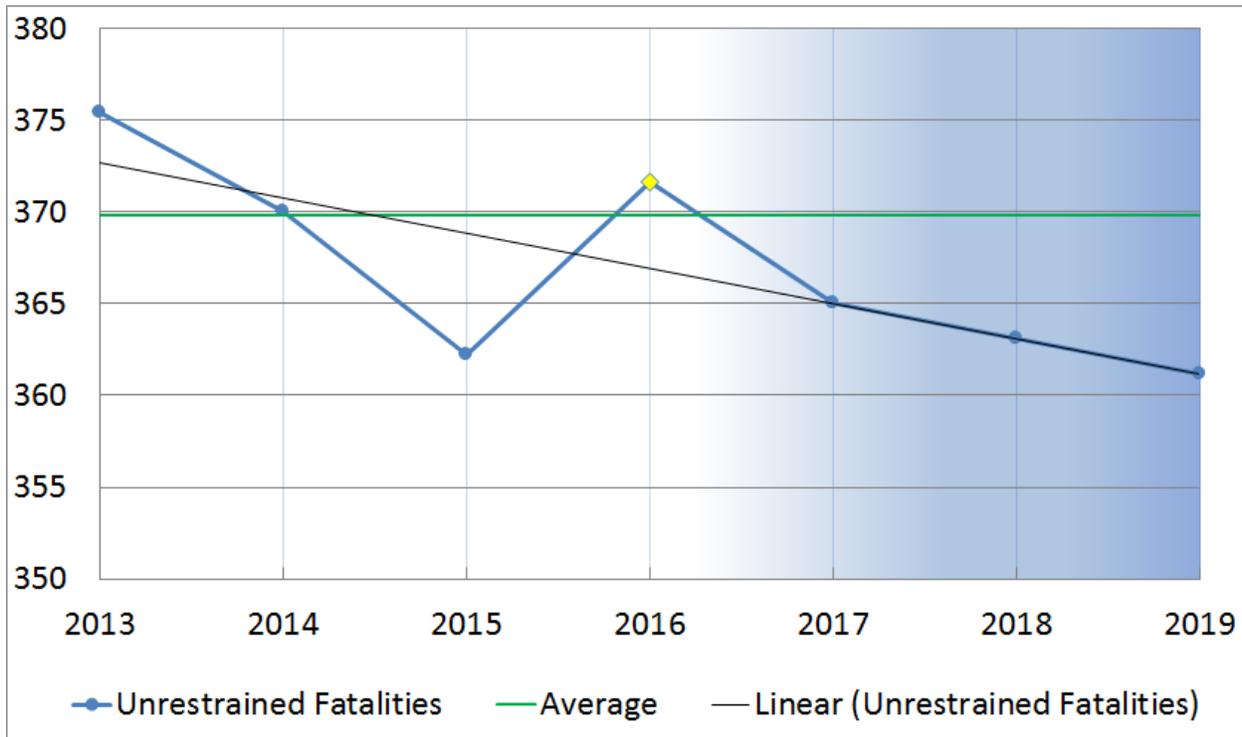
AOHS has projected a realistic goal to reduce Unrestrained Passenger Vehicle Occupant Fatalities by 1.07 percent from the five-year baseline average of 372 (2012-2016) to 368 by 2019. This goal was based on analysis of previous 5-year averages and trends in recent state crash data. Restraint deficient fatalities were quite stable over the 2011-2015 time frame, but increased along with the overall increase of about 15% in unrestrained fatalities in 2016. This goal has been set to reverse that sudden increase, and the anticipation is that the restraint programs will be successful in accomplishing this.

The five year average (2013 to 2017) number of unrestrained passenger vehicle occupant fatalities for 2018 is 380. The goal is not on track to being achieved.

An analysis of unrestrained passenger vehicle occupant fatalities was performed to compare the most recent year (2017) unrestrained passenger vehicle occupant fatalities with previous years (2013-2016). This study found that the distracted driving opinion was significant to the increase of unrestrained passenger vehicle occupant fatalities in 2017. Unrestrained passenger vehicle occupant fatalities involving distracted by user of electronic communication device accounted for .2% of all unrestrained passenger vehicle occupant fatalities between 2013 and 2016.

Unrestrained passenger vehicle occupant fatalities involving distracted by use of electronic communication device rose to 1.1% of all unrestrained passenger vehicle occupant fatalities in 2017. There seems to be a correlation between the unrestrained occupants and distraction from electronic communication devices, which is reasonable because both show a disregard for safety on the part of the driver.

5-Year Rolling Averages of Unrestrained Vehicle Occupant Fatalities



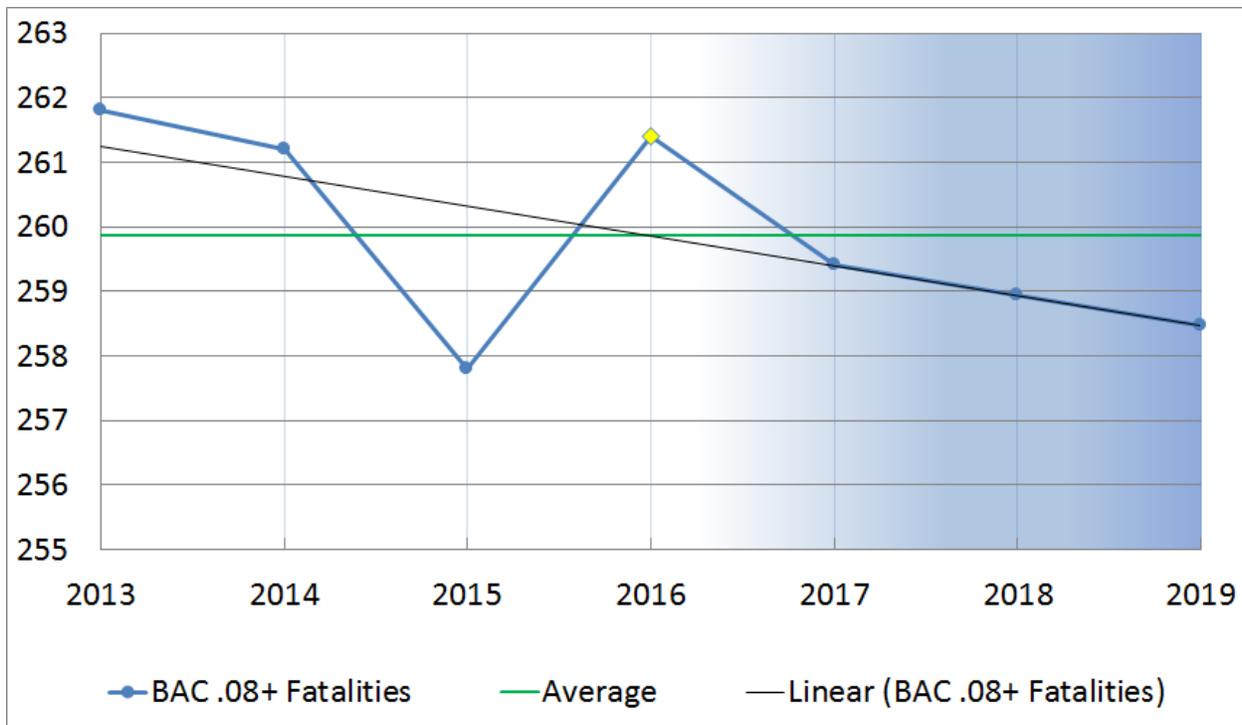
Performance Measure: C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)

Progress: **In Progress**

Program-Area-Level Report

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to not allow the alcohol-impaired driving fatalities to increase by more than 3.44 percent from the five-year baseline average of 261 (2012-2016) to 270 by 2019. The five year average (2013 to 2017) number of driver or motorcycle operator with a BAC of .08 and above (FARS) for 2018 is 267. The goal is in progress to be achieved.

5-Year Rolling Averages of Fatalities Involving a Driver with a BAC .08 and Above



Performance Measure: C-6) Number of speeding-related fatalities (FARS)

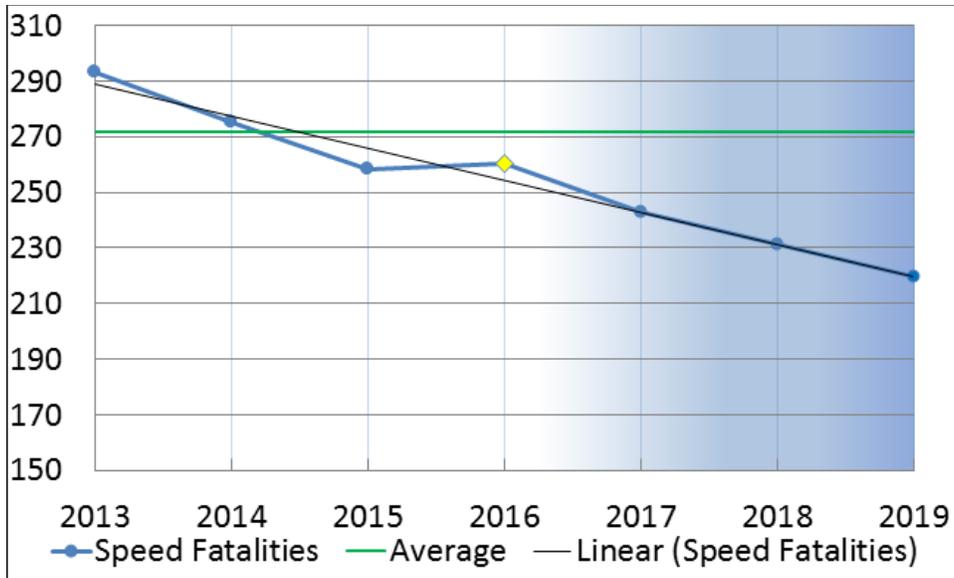
Progress: **In Progress**

Program-Area-Level Report

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to not allow Speeding-Related Fatalities to increase by more than 1.15 percent from the five-year baseline average of 260 (2012-2016) to 263 by 2019. Speeding related fatalities trended downward over the 2012-2015 time frame, but they increased with the overall increase in fatalities in 2016, with speed being the major cause for the increased severity of crashes in general that were experienced.

The five year average (2013 to 2017) number of speeding-related fatalities (FARS) for 2018 is 262. The goal is in progress to be achieved.

5-Year Rolling Averages of Speeding-Related Fatalities



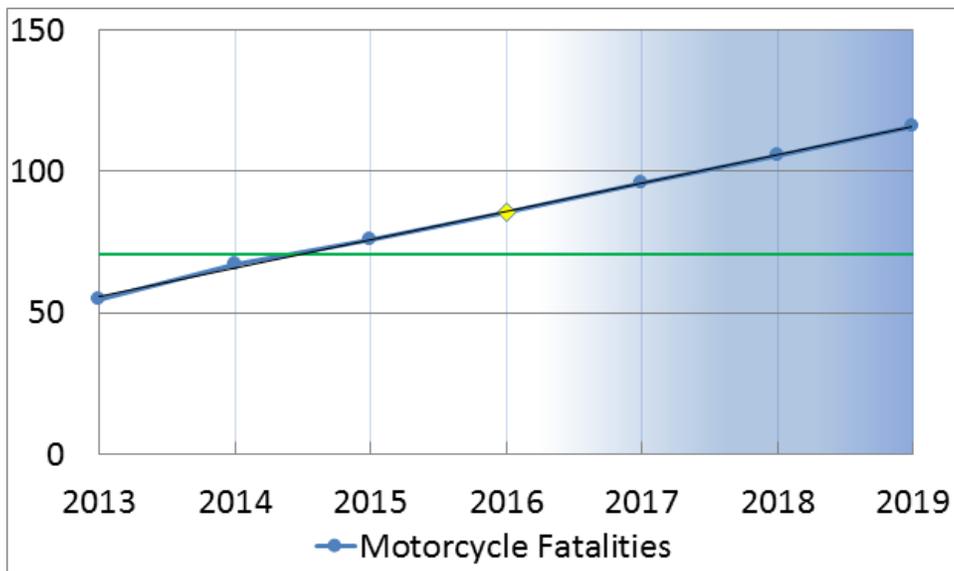
Performance Measure: C-7) Number of motorcyclist fatalities (FARS)

Progress: **In Progress**

Program-Area-Level Report

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to maintain motorcyclist fatalities from the five-year baseline average of 82 (2012-2016) to 82 by 2019. Motorcycle fatalities trended downward over the 2011-2015 time frame, but they increased with the overall increase in fatalities in 2016. This goal has been set to stop that increase, and the anticipation is that the enforcement programs will be successful in accomplishing this. The five year average (2013 to 2017) number of motorcyclist fatalities (FARS) for 2018 is 81. The goal is in process of being achieved.

5-Year Rolling Averages of Motorcyclist Fatalities



Performance Measure: C-8) Number of unhelmeted motorcyclist fatalities (FARS)

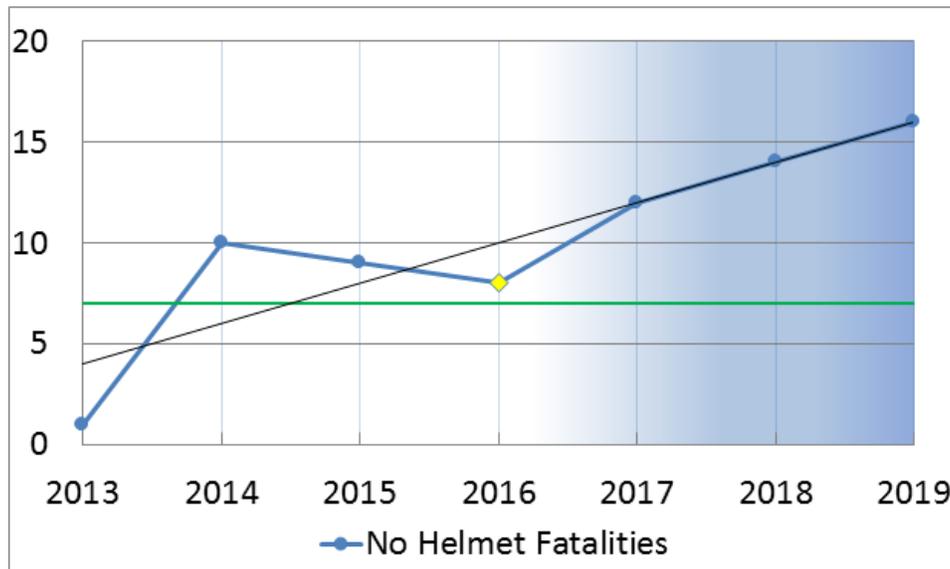
Progress: **In Progress**

Program-Area-Level Report

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to maintain the un-helmeted motorcyclist fatalities at the five-year baseline average of 8 (2012-2016) by 2019. Un-helmeted motorcyclist fatalities were stable averaging about 9 over the 2008-2012 time frame, and they decreased to an average closer to 7 in the 2013-2017 period. This goal has been set to maintain the post-2012 level, and the anticipation is that enforcement programs will be successful in accomplishing this.

The five year average (2013 to 2017) number of un-helmeted motorcyclist fatalities (FARS) for 2018 is 7. The goal is on track to being achieved.

5-Year Rolling Averages of Un-Helmeted Motorcyclist Fatalities



Performance Measure: C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)

Progress: **In Progress**

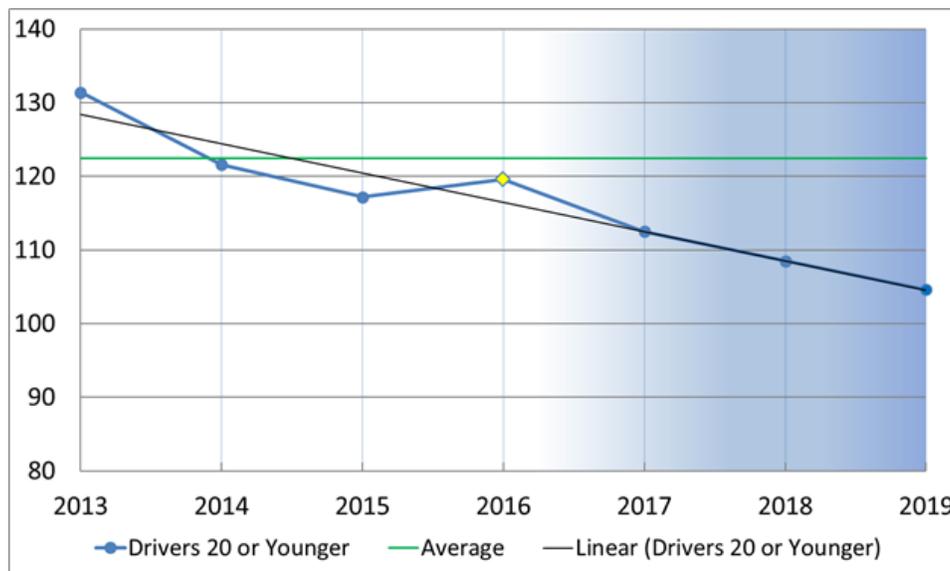
Program-Area-Level Report

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to reduce the drivers age 20 or younger involved in Fatal Crashes by .83 percent from the five-year baseline average of 120 (2012-2016) to 119 by 2019. A study of crashes caused by 16-20 year old drivers showed that the trend over 2011-2014 was quite favorable, and it was speculated that the recession affected younger drivers much more than older commuter and professional drivers. This appears to be correct in that with the end of the recession and the reduction in gas prices, these numbers rose back to their 2011-2012 levels.

This goal has been set to reverse that sudden increase, and the anticipation is that the programs directed at drivers who assume higher risk will be successful in bringing the number back down.

The five year average (2013 to 2017) number of drivers age 20 or younger involved in fatal crashes (FARS) for 2018 is 119. The goal is on track to being achieved.

5-Year Rolling Averages of Number of Drivers Age 20 or Younger involved in a Fatal Crash



Performance Measure: C-10) Number of pedestrian fatalities (FARS)

Progress: **In Progress**

Program-Area-Level Report

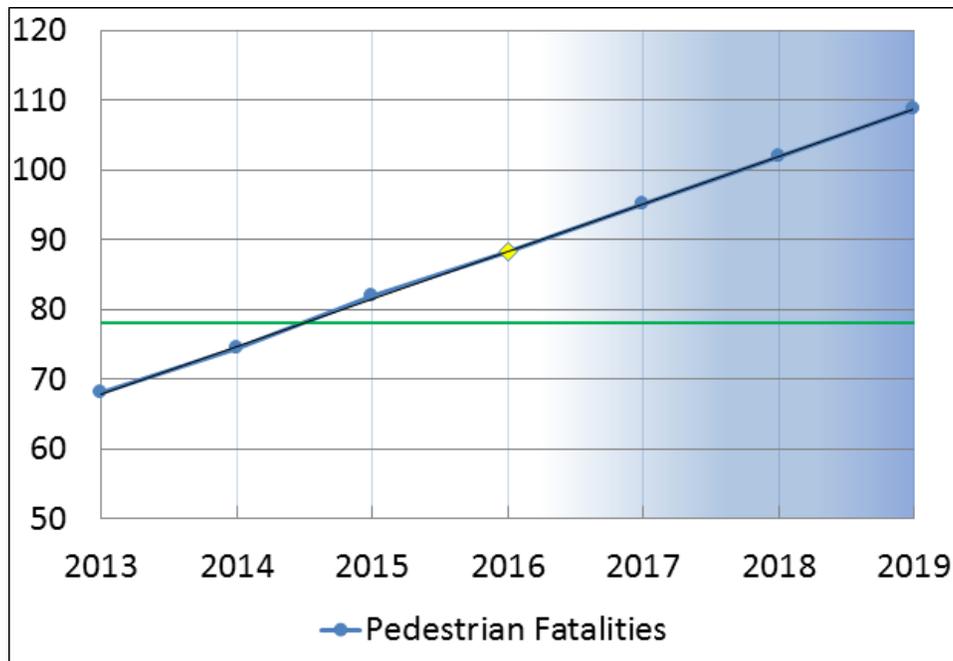
Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to maintain the number of pedestrian fatalities at the five-year baseline average of 88 (2012-2016) by 2019. A study of pedestrian crashes showed that the trend over 2010-2013 was stable with an average of about 69. The trend in the more recent years is up dramatically, and the underlying causes for this include the use of alcohol/drugs and distracted walking. This goal has been set to reverse that sudden increase, and the anticipation is that the pedestrian programs will be successful in bringing the number back down.

The five year average (2013 to 2017) number of pedestrian fatalities (FARS) for 2018 is 98. The goal is not on track to being achieved.

An analysis of pedestrian fatalities was performed to compare the most recent year (2017) pedestrian fatalities with previous years (2013-2016). This study found that the primary contributing circumstance was significant to the increase of pedestrian fatalities in 2017. Pedestrians lying or sitting in the roadway accounted for 1.9% of all pedestrian fatalities between

2013 and 2016. Pedestrians lying or sitting in the roadway rose to 9.0% of all pedestrian fatalities in 2017.

5-Year Rolling Averages of Pedestrian Fatalities



Performance Measure: C-11) Number of bicyclists fatalities (FARS)

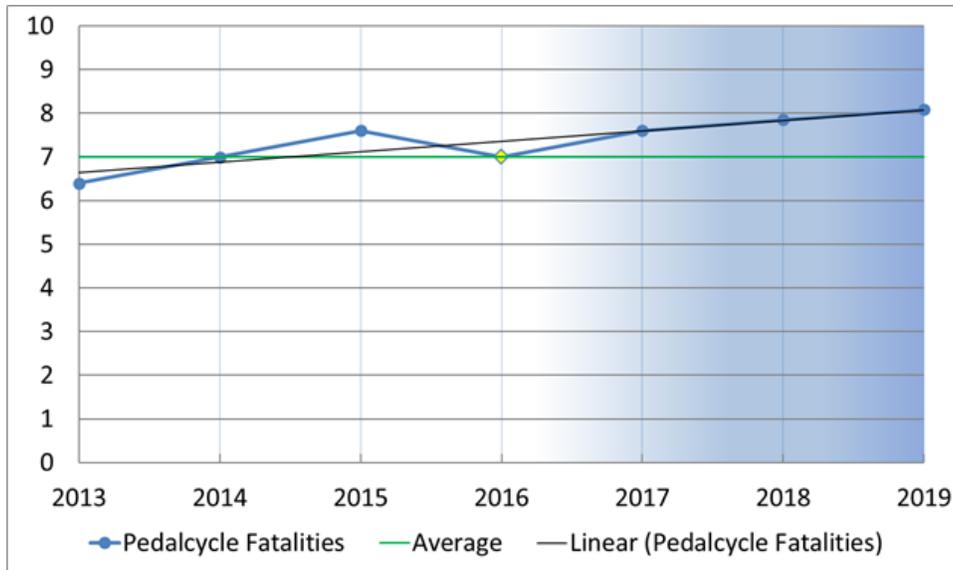
Progress: **In Progress**

Program-Area-Level Report

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to maintain the number of bicycle fatalities to the five-year baseline average of 7 (2012-2016) in 2019. A recent study of bicycle crashes showed that while the overall trend line is down, there has been an increase in the 2014-2016 time frame. It is important to recognize that with low numbers such as these, no one year can serve as a reliable sample in predicting future bicycle fatality realities. This goal has been set to reverse the recent increase and ultimately to get below the 2011-2012 level. It is anticipated that bicycle programs will be successful in bringing the number back down.

The five year average (2013 to 2017) number of bicyclist fatalities (FARS) for 2018 is 7. The goal is on track to being achieved.

5-Year Rolling Averages of Bicyclist Fatalities



Performance Measure: B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)

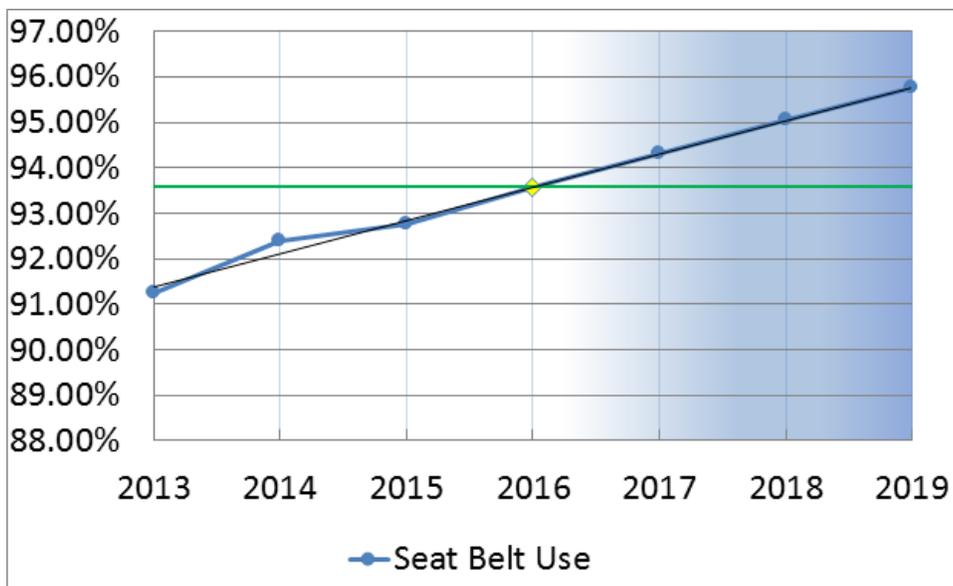
Progress: **In Progress**

Program-Area-Level Report

Based on analysis of previous observed seat belt usage rate observational surveys and trends in recent state crash data, AOHS has projected a realistic goal to maintain the observed seat belt usage at the five-year baseline average (2013 -2017) of 94.2% in 2019.

The five year average (2013 to 2017) observed seat belt use for passenger vehicles, front seat outboard occupants (survey) for 2018 is 94.24%. The goal is on track to being achieved.

5-Year Rolling Averages of Observed Seat Belt Use



Performance Plan

Sort Order	Performance measure name	Target Period	Target Start Year	Target End Year	Target Value
1	C-1) Number of traffic fatalities (FARS)	5 Year	2016	2020	964
2	C-2) Number of serious injuries in traffic crashes (State crash data files)	5 Year	2016	2020	8,143
3	C-3) Fatalities/VMT (FARS, FHWA)	5 Year	2016	2020	1.35
4	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	5 Year	2016	2020	374
5	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	5 Year	2016	2020	257
6	C-6) Number of speeding-related fatalities (FARS)	5 Year	2016	2020	262
7	C-7) Number of motorcyclist fatalities (FARS)	5 Year	2016	2020	82
8	C-8) Number of unhelmeted motorcyclist fatalities (FARS)	5 Year	2016	2020	8
9	C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)	5 Year	2016	2020	126
10	C-10) Number of pedestrian fatalities (FARS)	5 Year	2016	2020	110
11	C-11) Number of bicyclists fatalities (FARS)	5 Year	2016	2020	7
12	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	5 Year	2016	2020	91

Performance Measure: C-1) Number of traffic fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-1) Number of traffic fatalities (FARS)-2020	Numeric	964	5 Year	2016

Performance Target Justification

Based on analysis of previous 5-year averages and trends in more recent state crash data, AOHS has projected a realistic goal to not allow Number of Traffic Fatalities to increase more than 5.93% percent from the five-year baseline average of 910 (2013-2017) to 964 by 2020. **This goal was mutually agreed upon by the Alabama Office of Highway Safety, the Strategic Highway Safety Plan steering committee and the Highway Safety Improvement Plan committee.**

5 Year Rolling Averages of Traffic Fatalities



Performance Measure: C-2) Number of serious injuries in traffic crashes (State crash data files)

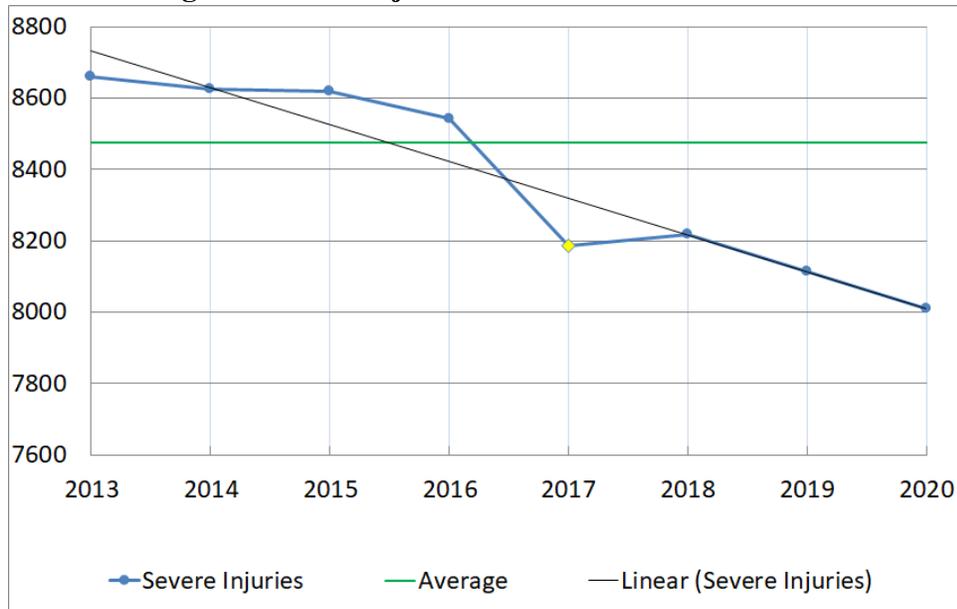
Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-2) Number of serious injuries in traffic crashes (State crash data files)-2020	Numeric	8,143	5 Year	2016

Performance Target Justification

Based on analysis of previous 5-year averages and trends in more recent state crash data, AOHS has projected a realistic goal to reduce Number of Severe injuries in Traffic Crashes by .51 percent from the five year baseline average of 8,185 (2013-2017) to 8,143 by 2020. **This goal was mutually agreed upon by the Alabama Office of Highway Safety, the Strategic Highway Safety Plan steering committee and the Highway Safety Improvement Plan Committee.**

5 Year Average of Serious Injuries



Performance Measure: C-3) Fatalities/VMT (FARS, FHWA)

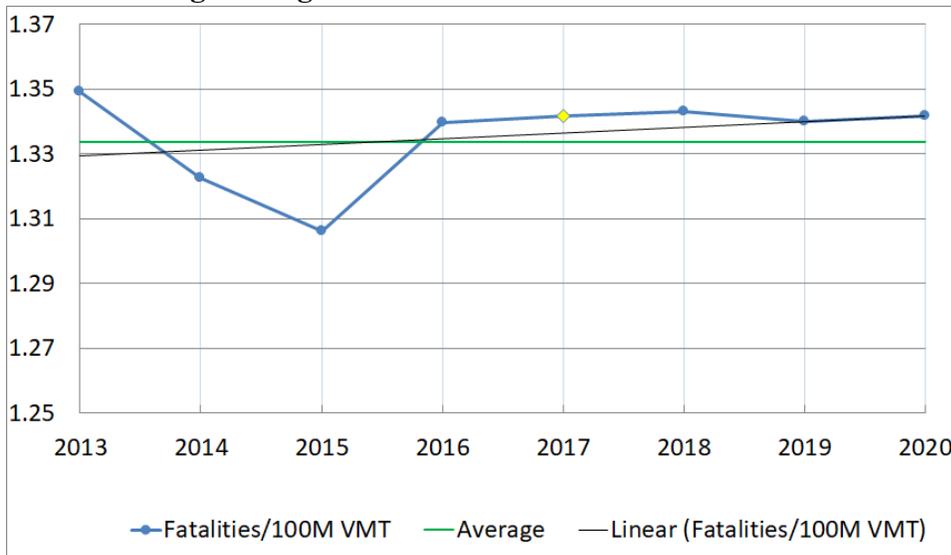
Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-3) Fatalities/VMT (FARS, FHWA)-2020	Numeric	1.35	5 Year	2016

Performance Target Justification

Based on analysis of previous 5-year averages and trends in more recent state crash data, AOHS has projected a realistic goal to reduce Total Fatality Rate/VMT by .74 percent from the five-year baseline average of 1.34 (2013-2017) to 1.35 by 2020. **This goal was mutually agreed upon by the Alabama Office of Highway Safety, the Strategic Highway Safety Plan steering committee and the Highway Safety Improvement Plan committee.**

5-Year Rolling Averages of Total Fatalities/100 MVMT.



Performance Measure: C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)

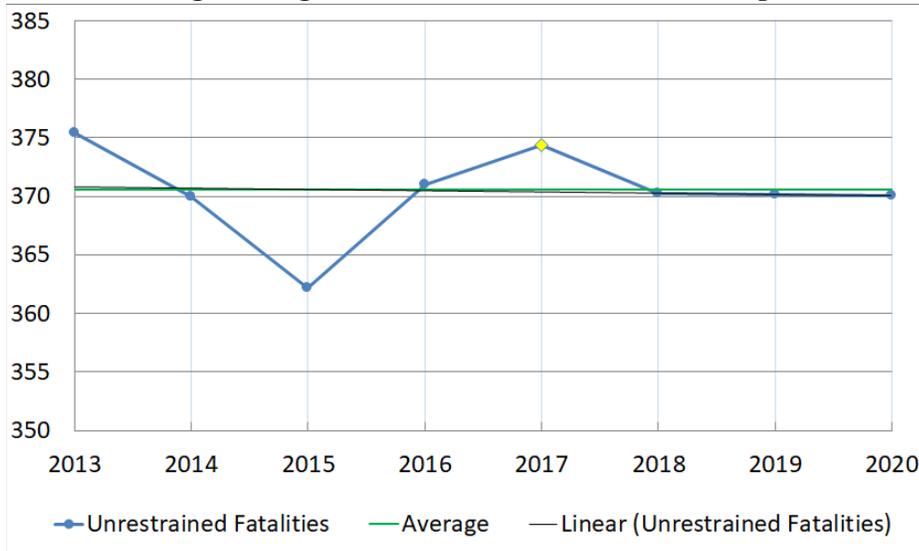
Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)-2020	Numeric	374	5 Year	2016

Performance Target Justification

AOHS has projected a realistic goal to reduce Unrestrained Passenger Vehicle Occupant Fatalities by .37 percent from the five-year baseline average of 374.4 (2013-2017) to 373 by 2020. This goal was based on analysis of previous 5-year averages and trends in recent state crash data. Restraint deficient fatalities were quite stable over the 2011-2015 time frame, but increased along with the overall increase of about 15% in unrestrained fatalities in 2016. This goal has been set to reverse that sudden increase, and the anticipation is that the restraint programs will be successful in accomplishing this.

5-Year Rolling Averages of Unrestrained Vehicle Occupant Fatalities



Performance Measure: C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)

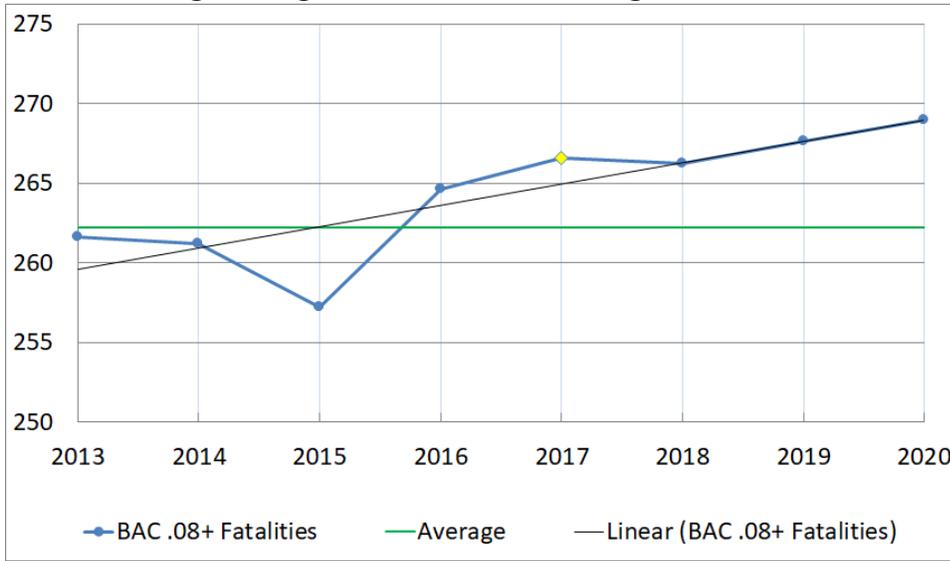
Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)-2020	Numeric	257	5 Year	2016

Performance Target Justification

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to maintain the alcohol-impaired driving fatalities at the five-year baseline average of 262 (2013-2017) in 2020. Alcohol impaired driver fatalities increased with the overall increase in fatalities in 2016, but experienced a significant decrease in 2017.

5-Year Rolling Averages of Fatalities Involving a Driver with a BAC .08 and Above



Performance Measure: C-6) Number of speeding-related fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-6) Number of speeding-related fatalities (FARS)-2020	Numeric	262	5 Year	2016

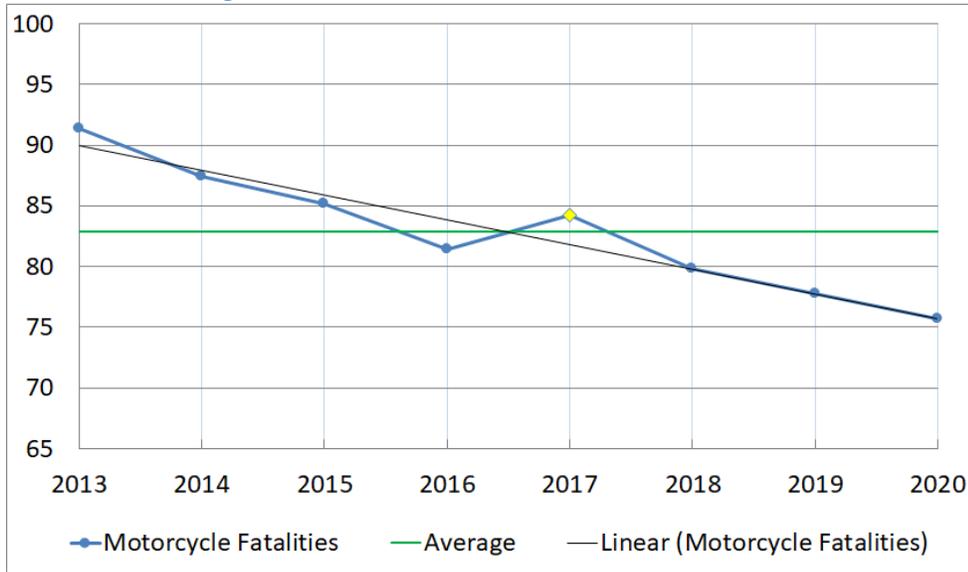
Performance Target Justification

Performance Measure: C-7) Number of motorcyclist fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-7) Number of motorcyclist fatalities (FARS)-2020	Numeric	82	5 Year	2016

Performance Target Justification



Performance Measure: C-8) Number of unhelmeted motorcyclist fatalities (FARS)

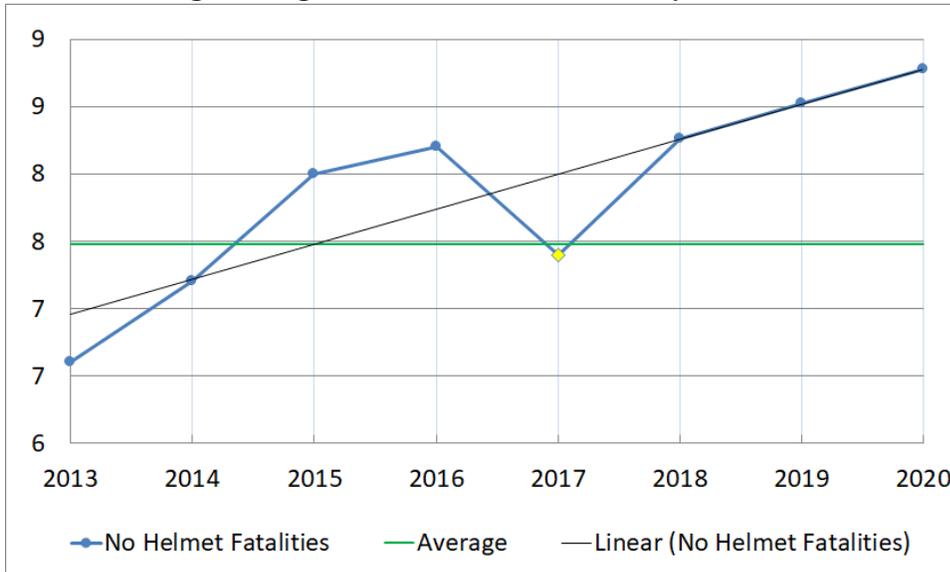
Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-8) Number of unhelmeted motorcyclist fatalities (FARS)-2020	Numeric	8	5 Year	2016

Performance Target Justification

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to not allow un-helmeted motorcyclist fatalities to increase by more than 8.1 percent greater of the five-year baseline average of 7.4 (2013-2017) to 8 in 2020. Unhelmeted motorcycle fatalities were stable averaging about 9 over the 2008-2012 time frame, and they decreased to an average closer to 7 in the 2013-2017 period. This goal has been set to maintain the post-2012 level, and the anticipation is that enforcement programs will be successful in accomplishing this.

5-Year Rolling Averages of Un-Helmeted Motorcyclist Fatalities



Performance Measure: C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)

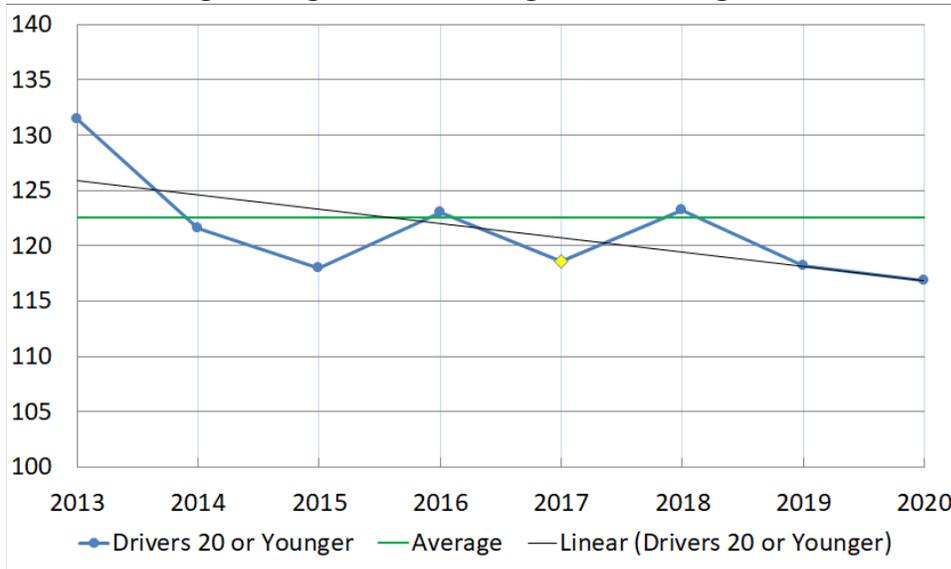
Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)-2020	Numeric	126	5 Year	2016

Performance Target Justification

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to not allow the drivers age 20 or younger involved in Fatal Crashes to increase by more than .83 percent from the five-year baseline average of 119 (2013-2017) to 126 in 2020.

5-Year Rolling Averages of Drivers Age 20 or Younger involved in a Fatal Crash



Performance Measure: C-10) Number of pedestrian fatalities (FARS)

Performance Target details

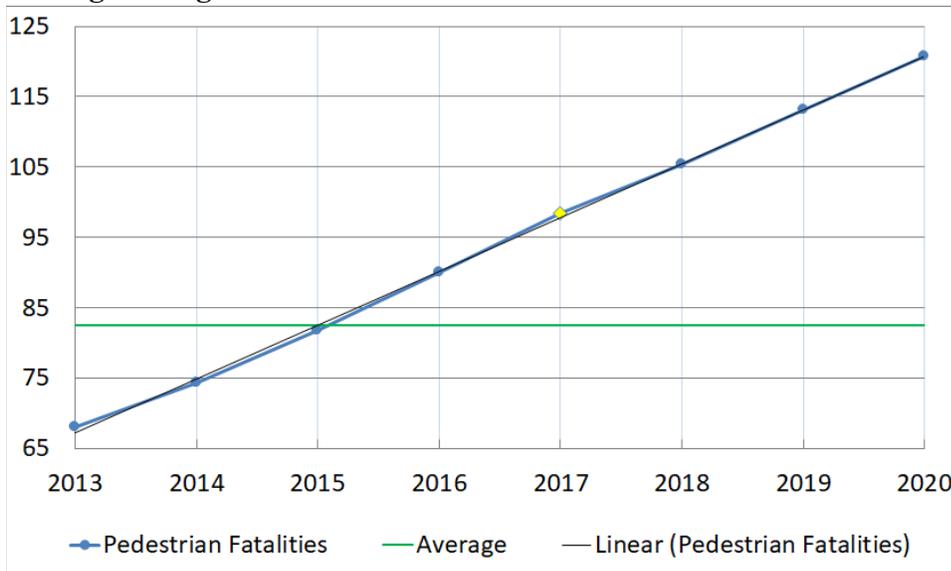
Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-10) Number of pedestrian fatalities (FARS)-2020	Numeric	110	5 Year	2016

Performance Target Justification

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to not allow the number of pedestrian fatalities to increase more than 12.24 % from five-year baseline average of 98 (2013-2017) to 110 by 2020. A study of pedestrian crashes showed that the trend over 2010-2013 was stable with an average of about 69. The trend in the more recent years is up dramatically, and the underlying causes for this include the use of alcohol/drugs and distracted walking. This goal has been set to reverse that sudden increase, and the anticipation is that the pedestrian programs will be successful in bringing the number back down.

Five Year

Rolling Average of Pedestrian Fatalities



Performance Measure: C-11) Number of bicyclists fatalities (FARS)

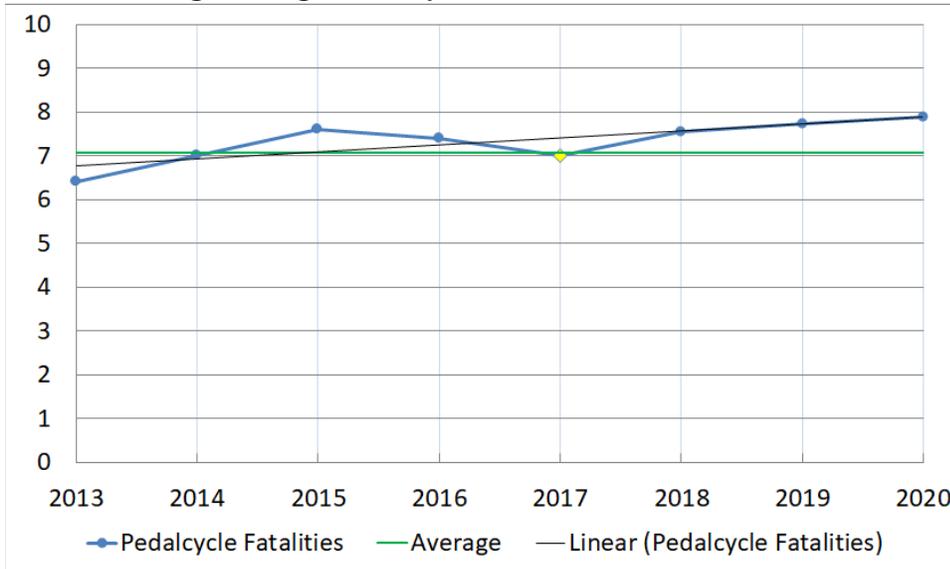
Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-11) Number of bicyclists fatalities (FARS)-2020	Numeric	7	5 Year	2016

Performance Target Justification

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal to maintain the number of bicycle fatalities to the five-year baseline average of 7 (2012-2016) in 2019. A recent study of bicycle crashes showed that while the overall trend line is down, there has been an increase in the 2014-2016 time frame. It is important to recognize that with low numbers such as these, no one year can serve as a reliable sample in predicting future bicycle fatality realities. This goal has been set to reverse the recent increase and ultimately to get below the 2011-2012 level. It is anticipated that bicycle programs will be successful in bringing the number back down.

5-Year Rolling Averages of Bicyclist Fatalities



Performance Measure: B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)

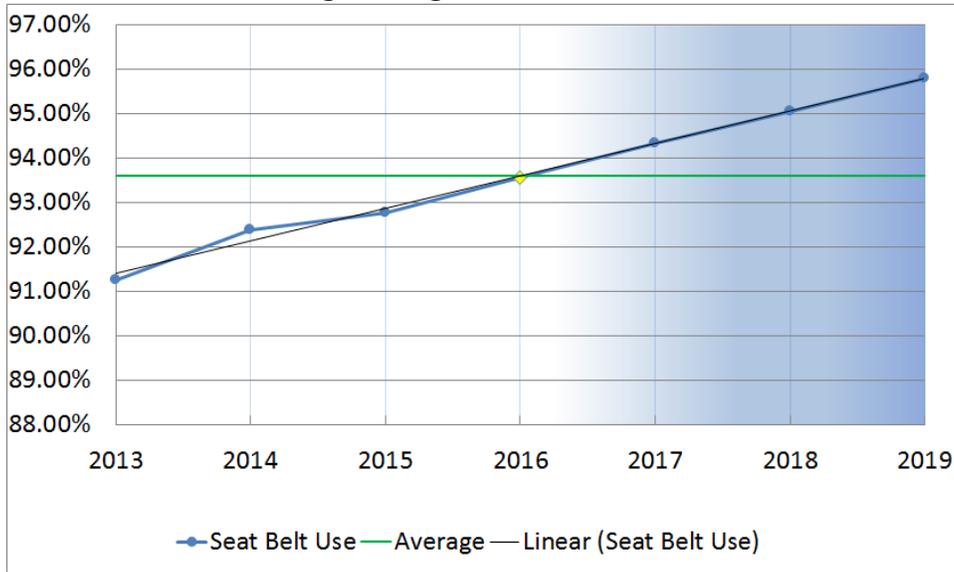
Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)-2020	Percentage	91	5 Year	2016

Performance Target Justification

Based on analysis of previous observed seat belt usage rate observational surveys and trends in recent state crash data, AOHS has projected a realistic goal to maintain the observed seat belt usage at the five-year baseline average (2013 -2017) of 94.2% in 2019.

5-Year Rolling Averages of Observed Seat Belt Use



Certification: State HSP performance targets are identical to the State DOT targets for common performance measures (fatality, fatality rate, and serious injuries) reported in the HSIP annual report, as coordinated through the State SHSP.

I certify: **Yes**

A-1) Number of seat belt citations issued during grant-funded enforcement activities*

Seat belt citations: **12574**

Fiscal Year A-1: **2018**

A-2) Number of impaired driving arrests made during grant-funded enforcement activities*

Impaired driving arrests: **687**

Fiscal Year A-2: **2018**

A-3) Number of speeding citations issued during grant-funded enforcement activities*

Speeding citations: **43345**

Fiscal Year A-3: **2018**

Program areas

Program Area: Distracted Driving

Description of Highway Safety Problems

The HSP is completely evidence-based as demonstrated by the results of these problem identification steps that are documented in detail in the plan. The value of such integrated enforcement efforts is demonstrated by studies referenced in Page 1-24 of *NHTSA Countermeasures that Work*, the URL reference:

Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices, Eighth Edition, 2015

<http://www.safehomealabama.gov/Portals/0/PDF/Countermeasures%20that%20Work%20811727.pdf>

Beginning in 2010 it was determined that a tool should be established to enable decision-makers to view the state's traffic safety issues at the highest possible level. This tool was named "Table 1" and it appears below. It was reasoned that, all other things being equal, traffic safety resource allocations should go to address those issues that cause the greatest number of fatalities. While this is a good default position to start from, all other things are rarely equal, and optimal resource allocations must also take into account the cost of the countermeasures being considered and the proportion of the crashes that can reasonably be reduced by any given countermeasure. Thus, an item with a lower number of fatalities could become optimal to address if a lower cost countermeasure would reduce a larger number of its crashes.

The eCrash system that went into effect July 1, 2009 creates data that meets most of the Model Minimum Uniform Crash Criteria (MMUCC). It provides data that are much timelier, since in many cases these reports are available the same day as the crash. Careful work was done to ensure that no variables or codes that could indicate a particular crash category of Table 1 were missed, and that the search criteria captured all of the crashes for each of the particular categories for this evidence-based analysis.

There are no limitations on the various subjects that may be added for consideration in Table 1, and all SHSP participants are encouraged to add any categories that they feel are appropriate. Distracted Driving (DD) was the most recently added for the FY 2018 HSP. The category with the highest number of fatal crashes is listed at the top of Table 1, descending to the crash type category with the lowest number of fatal crashes listed last. The number and percent of crashes by severity are listed for each category (see footnote for the exception of "restraint deficient"). This enables an easy comparison between the various crash types. It is important to realize that the categories of Table 1 are not mutually exclusive. However, since this is true in all of the categories, these numbers serve to give the relative criticality of the particular categories that most often are the targets for funding or other resource allocations.

Table 1 for the FY2020 HSP

Top Fatality Causes; Alabama CY2018 Data

Crash Type (Causal Driver)	Fatal Number	Fatal %	Injuries	Injury %	PDO No.	PDO %	Total
1. Seat Belt Restraint Deficient *	372	3.67%	4,073	40.14%	5,703	56.20%	10,148
2. Speed Involved	199	1.94%	3,259	31.85%	6,774	66.20%	10,232
3. ID/DUI All Substances	169	3.05%	2,135	38.59%	3,228	58.35%	5,532
4. Hit Obstacle on Roadside	124	1.87%	2,126	32.14%	4,365	65.99%	6,615
5. Pedestrian, Bicycle, School Bus	117	7.04%	939	56.53%	605	36.42%	1,661
6. Fail to Yield or "Ran ..." (All)	114	0.37%	7,676	24.92%	23,010	74.71%	30,800
7. Mature (65 or Older) Causal	112	0.75%	3,249	21.76%	11,567	77.49%	14,928
8. Pedestrian	106	13.97%	621	81.82%	32	4.22%	759

n Involved							
9. License Deficiency Causal Driver	103	1.59%	2,018	31.22%	4,342	67.18%	6,463
10. Wrong Way Items	99	2.10%	1,042	22.06%	3,582	75.84%	4,723
11. Youth (16-20) Causal Driver	86	0.37%	5,110	21.91%	18,129	77.72%	23,325
12. Motorcyc le Involved	76	4.93%	1,065	69.02%	402	26.05%	1,543
13. Aggressi ve Operatio n	70	2.44%	856	29.89%	1,938	67.67%	2,864
14. Distracte d Driving	43	0.29%	3,208	21.93%	11,380	77.78%	14,631
15. Drowsy Driving	38	1.05%	1,383	38.04%	2,215	60.92%	3,636
16. Large Truck Involved	36	0.52%	1,432	20.49%	5,521	79.00%	6,989
17. Utility Pole	29	1.15%	877	34.90%	1,607	63.95%	2,513

18.	27	0.72%	770	20.50%	2,959	78.78%	3,756
Workzone Related							
19.	12	0.36%	690	20.70%	2,631	78.94%	3,333
Vehicle Defects – All							
20.	10	0.84%	320	26.87%	861	72.29%	1,191
Vision Obscured							
21.	9	3.53%	206	80.78%	40	15.69%	255
Bicycle							
22.	4	7.69%	23	44.23%	25	48.08%	52
Railroad Trains							
23.	4	0.84%	207	43.49%	265	55.67%	476
Child Restraint Deficient *							
24.	3	2.34%	28	21.88%	97	75.78%	128
Roadway Defects – All							
25.	2	0.31%	112	17.31%	533	82.38%	647
School Bus Involved							

* All categories list number of crashes except for the “Seat Belt Restraint Fault” and “Child Restraint Fault” categories. The restraint categories cannot accurately be measured by number of crashes so they list number of unrestrained persons for each severity classification.

The comparison of gross fatality and injury counts is merely a first step in the analytical process to find optimal allocations of resources among programs. Obtaining this first-cut perspective is essential for intelligent decision-making. Once the high-level decisions are made regarding which of the crash types will be addressed, further analyses must be performed to define countermeasures and improve their implementation. The severity classification in Table 1 also helps in this regard. For example, it might be noticed that the relative severity percentage of pedestrian, bicycle, motorcycle and railroad crashes are significantly higher than the other

categories, as is true for the top three categories as well. This is an important aspect to be considered when the ultimate goal is reducing deaths.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-1) Number of traffic fatalities (FARS)	2020	5 Year	964
2020	C-2) Number of serious injuries in traffic crashes (State crash data files)	2020	5 Year	8,143
2020	C-3) Fatalities/VMT (FARS, FHWA)	2020	5 Year	1.35
2020	C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)	2020	5 Year	126

Countermeasure Strategies in Program Area

Countermeasure Strategy
Communication Campaign

Countermeasure Strategy: Communication Campaign

Program Area: **Distracted Driving**

Project Safety Impacts

A new countermeasure strategy for the AOHS will focus on a communication campaign to educate the general and motoring public on the dangers of distraction while on public roads and highways. As noted in *NHTSA Countermeasures that Work* document, while a majority of the motoring public knows that distracted driving is a problem, a campaign addressing this issue faces substantial obstacles. However, Alabama is confident that the first step to impact traffic safety in this area is to simply begin. While enforcement efforts are difficult to implement targeting distraction, our office plans to utilize already established advertising platforms to our intended audience in order to help raise awareness.

1. **General deterrence** seeks to increase the public perception that distracted drivers will face severe consequences, thus discouraging all individuals from driving while distracted.

Projected traffic safety impacts of the Distracted Driving Communication Campaign include decreased crashes where distraction is a primary contributing circumstance.

Linkage Between Program Area

As part of the Alabama Office of Highway Safety (AOHS) traffic safety planning effort, special problem identification studies are performed for the various program areas chosen. When any new issues arise, or for all countermeasures for which discretionary funds are expended, special analytical procedures are employed. The process is as follows:

2. Analyze results of problem identification to set performance measure targets for the program year
3. Evaluate the potential overall countermeasure strategies at a very high level in the light of evidence-based information that is generated primarily from crash records with some supplements provided by citation records.
4. Select the overall programs that will be implemented from a strategic point of view.
5. Use further analytics to fine-tune the particular countermeasures that will be implemented, e.g., the specific locations for selective enforcement and determine allocation of funds.

This analytical review includes all of the countermeasures that are presented in this plan as well as the particular tactics to be applied in their implementations

After reviewing performance goals, the AOHS then examines and selects countermeasures to help achieve the state's targets. The following outlines the strategies of countermeasures to be applied during FY 2020:

6. Community Traffic Safety Programs/Law Enforcement Liaison (CTSP/LEL) – will provide coordination for the local implementations of the statewide occupant protection program, and the CTSP/LEL Coordinators and the administrative support for their offices will be maintained.
7. The University of Alabama Center for Advanced Public Safety (UA-CAPS) will provide the information required for allocating traffic safety resources in an optimal way, and they will continue to be supported in providing AOHS with Alabama crash and traffic safety data throughout the year.
8. Conduct four local Hotspot Evidence-Based Enforcement Program (E-BEP) projects, one within each of the CTSP/LEL regions focusing on hotspot locations.
9. Perform a statewide E-BE project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA), also focusing on hotspot locations.
10. Continue the Law Enforcement Liaison (LEL) programs statewide. Beginning in FY 2007, this program was absorbed by the regional CTSP/LEL offices and was funded through the Community Traffic Safety Projects. This funding arrangement will continue in FY 2020.
11. Participate in national and regional High Visibility Enforcement campaign on the statewide level, paired with a corresponding mass media campaign.

Funding allocation is determined by evaluating the threshold of resources that are required to carry out each planned activity for the duration of the project in a calculated and realistic manner.

Rationale

To promote movement toward the AOHS vision while maintaining the ideals given above the following mission statement was developed:

Conduct Evidence-Based Enforcement (E-BE) coupled with Public Information and Education (PI&E) and other supportive countermeasures that will reduce fatalities and injuries by focusing on the locations identified for speed and impaired driving hotspots with additional strong consideration to hotspots where deficiencies in occupant protection and distracted driving are found.

Reducing the number of speed and impaired-driving related crashes while increasing the use of appropriate restraints has been shown in the past to produce the maximum benefit for the resources that are dedicated to traffic safety. These lessons from the past need to be extended in the future because there are still considerable benefits that can be attained by these programs. It is important to recognize that the majority of fatalities are caused by the *choice* to speed, drive impaired, use an electronic device, or not buckle up (quite often combinations of the four). By changing driver and occupant behavior, the number of hotspot locations will be reduced, and overall traffic safety will be improved.

Distracted driving is known to be a growing concern, and efforts will be made during the coming fiscal year to determine the best way to counter crashes from this cause. Recent increases in pedestrian incidents can be attributed to the combination of distracted driving and distracted walking, often involving electronic devices. Fatal pedestrian crashes have been particularly over-represented in drug and alcohol use. This has also been impacted by the significant migration to urban areas in the past few years.

While current laws in Alabama make it difficult to conduct high visibility enforcement efforts targeting Distracted Driving, a communication campaign can educate the general public regarding the dangers of the behavior. This communication countermeasure will be funded with State money, and is meant to affect a reduction in drivers and pedestrians alike, and aid in the reduction of fatalities and significant injuries.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
20-TF-ST-001	Distracted Driving Paid Media

Planned Activity: Distracted Driving Paid Media

Planned activity number: **20-TF-ST-001**

Primary Countermeasure Strategy ID: **Communication Campaign**

Planned Activity Description

Drivers under the age of twenty are the largest group reported as distracted at the time of fatal crashes. A texting driver is 23 times more likely to be involved in a crash than a non-texting driver. The Auburn MPG will collaborate with ADECA/LETS in the creation of impactful graphic designs that communicate a concise message on the dangers of distracted driving, and coordinate the printing and distribution of these tickets for high school events with Huddle, Inc. throughout the state.

Intended Subrecipients

Auburn University

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	Other		\$100,000.00		

Program Area: Impaired Driving (Drug and Alcohol)

Description of Highway Safety Problems

The AOHS conducted a problem identification analysis for Impaired Driving in the State of Alabama to pinpoint common factors and assess strategies that could be used to combat the growing issue. AOHS compared FY2018 Impaired Driving (ID) crashes against FY2016-2017 ID crashes to determine any significant changes that have occurred in FY2018 from the previous two fiscal years. Impaired Driving (ID) includes both alcohol and all other drugs, and the goal was to pinpoint common factors and assess strategies that could be used to combat any growing issues. A review was also conducted of the current legislation in Alabama regarding ID laws and penalties. The findings were then taken into consideration when planning enforcement campaigns, as well as training programs to fund in the upcoming fiscal year.

This section also presents the results of a comparison of ID crashes compared to non-ID crashes in the most recent five-year period for which state data are available (CY2014-2018). An over-represented value of an attribute is a situation found where that attribute has a greater share of ID crashes than would be expected if it were the same as that attribute in non-ID crashes. That is, the non-ID crashes are serving as a control to which the ID crashes are being compared. In this way anything different about ID crashes surfaces and can be subjected to further analyses.

The analytical technique employed to generate most of the displays below is called Information Mining Performance Analysis Control Technique (IMPACT). For a detailed description of the meaning of each element of the IMPACT outputs, see:

<http://www.caps.ua.edu/software/care/>

Impaired Driving (ID) Update for FY2018:

This section will compare ID crashes that occurred in FY2018 with those that occurred in the previous two fiscal years (FY2016-2017). The goal of this comparison is to identify factors that have undergone a significant change in the FY2018 time frame. A comparison by severity gives the highest level overview.

Overall Crashes by Year

Before getting into the ID subset, it is good to get a feel for the overall difference in the crash frequencies over the past years. The following table gives a comparison of total crashes over CY2014-2018 by severity.

It can be concluded from considering the percentage numbers at the bottom of the table that 2018 was not significantly different in total crashes from 2016 or 2017, there being only a 1.9% difference. However, it is clear from looking at the low total frequencies in 2014 and 2015, there is a significant increase in the trend over the five years. Fatal crashes had a dramatic increase in 2016, while there has been a regression to the mean 2017 and 2018, fatal crashes in these years is still higher than in 2014 and 2015. With regard to interpreting the remainder of the findings, we should view 2018 as quite comparable in number to 2017, and thus, retaining the increase over 2015. However, we shall see the frequency of fatal crashes was significantly lower in 2017 and 2018 than in 2016, and a major factor in this reduction was the reduction in the ID fatal crashes.

Crashes by Severity for Fiscal Years 2014-2018

	2014	2015	2016	2017	2018	Total
Fatal Injury	742	800	996	860	866	4264
Incapacitating Injury	6016	6530	6109	5580	5225	29460
Non-incapacitating Injury	11027	11155	11604	11676	11870	56332
Possible Injury	12056	13681	14945	15003	15077	70762
Unknown	4130	4156	4069	4507	4216	21078
Property Damage	100688	113556	118614	119478	122401	574737
Total	133659	149978	156337	157104	159655	756633

Location Analysis

Below is an example of the location analysis conducted in the state.

Top Impaired Driving Statewide Locations

FY2019 - Impaired Driving	Hotspots
Mileposted Interstate Locations	7
State and Federal Routes	3
Intersections	130
Segments	11

FY2020 Top 7 Mileposted Interstate Locations (5 miles in length) in Alabama with 8 or More Impaired Driving Related Crashes Resulting in Injury or Fatality

Rank	County	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	S/CRS	C/MVM	ADT	Agency ORI
1	Jefferson	I-59	114.5	119.5	8	1	7	27.5	0.01	62703	ALEA - Birmingham Post
2	Jefferson	I-59	123	128	19	1	18	15.79	0.01	144624	Birmingham PD
3	Jefferson	I-59	128	133	9	0	9	27.78	0.01	103205	Birmingham PD
4	Jefferson	I-59	133	138	8	3	5	35	0.02	48251	Birmingham PD
5	Jefferson	I-65	250	255	11	4	7	30	0.01	116205	Hoover PD
6	Jefferson	I-65	256.6	261.6	10	0	10	19	0.01	126803	Birmingham PD
7	Blount	I-65	283.9	288.9	8	0	8	17.5	0.02	41275	ALEA - Decatur Post

FY2020 Top 18 Mileposted State and Federal Route Locations (5 Miles in Length) in Alabama with 3 or More Impaired Driving Related Crashes Resulting in Injury or Fatality

Rank	County	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	S/CRS	C/MVM	ADT	Agency ORI
1	Russell	S-1	110.6	115.6	9	0	9	24.44	0.03	34231	Phenix City PD
2	Madison	S-1	331	336	9	0	9	16.67	0.02	59785	Huntsville PD
3	Madison	S-1	339	344	9	0	9	18.89	0.03	28249	Huntsville PD

It is clear from looking at the low total frequencies in 2014 and 2015, there is a significant increase in the trend over the five years. Fatal crashes had a dramatic increase in 2016, while there has been a regression to the mean 2017 and 2018, fatal crashes in these years is still higher than in 2014 and 2015. With regard to interpreting the remainder of the findings, we should view 2018 as quite comparable in number to 2017, and thus, retaining the increase over 2015. However, we shall see the frequency of fatal crashes was significantly lower in 2017 and 2018 than in 2016, and a major factor in this reduction was the reduction in the ID fatal crashes.

A summary of findings is given after the analyses presented below. The first category is a general comparison of 2018 against 2014-2017. All of the other categories below (e.g.,

Geographical Factors, etc.) are obtained from a comparison of ID vs. Non-ID crashes for all five years (2014-2018).~~OBJ:OBJ:~~

General Comparison of 2018 against 2014-2017

1. Overall crash frequencies for 2018 were 10,410 crashes higher than the average per year totals for 2014-2017. Total crashes in 2018 were only about 2,551 more than in 20167, but the increase from 2014 to 2018 was almost 26,000.
2. In a comparison over the five years, overall fatal crashes were down slightly, with 2018 having about 42 (1.2%) fewer fatal crashes than would be expected from the previous four-year average.
3. A similar a comparison of the calendar years of ID fatal crashes showed and overall decrease in ID fatal crashes from 198 in 2014 to 169 in 2018, ad decrease of 29 fatal crashes, a decrease of nearly 15%. The highest severity crash (Incapacitating Injury) was also down from 670 to 596, a reduction of 74 (11,0%).
4. Considering the overall percentage of ID fatalities to total fatalities, the results for each year from 2014 through 2018 were 3.3%; 3.2%; 3.9%; 3.2% and 3.0%, which was fairly stable with the exception of 2016.

Geographical Factors

5. County - Generally, the over-represented counties are those with combined large population centers and large rural areas, as opposed to the highly urbanized counties or the extremely rural counties. One reason the highly urbanized counties are under-represented is the large number of low severity crashes that occur there separate and apart from ID crashes. See the rural-urban comparison below. Placed in Max Gain order, the ones with the highest potential for reduction were: Baldwin, Cullman, Marshall, Madison, Blount, Elmore, Limestone, and St Claire.
6. City Comparisons of ID crashes to Non-ID Crash Frequency. There is little surprise in this output, which tracks the areas by population. Traffic safety professionals should look for any locations that fall counter to this trend. The county rural areas (virtual cities) with max gains in excess of 160 ID crashes over their expected numbers are: Rural Mobile, Rural Madison, Rural Cullman, Rural Tuscaloosa, Rural Baldwin, Rural Blount, Rural Elmore, Rural Marshall, Rural Limestone, Rural Houston, Rural Lauderdale, and Rural Lee. [Expected numbers (or expectations) here and below are obtained from the proportion for non-ID crashes.]
7. Overall Area Comparisons Conclusions – Generally those rural areas adjacent to (or contain) significant urbanized areas are over-represented, since their urban areas generate more traffic even in the rural areas. Possible factors for relatively fewer severe ID crashes within urban areas include:

1. Less need for motor vehicle travel and shorter distances to the drinking establishments;
2. Larger police presence in the metropolitan areas; and
3. Lower speeds in rural areas.

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8. Severity of Crash by Rural-Urban – While only about 42% of crashes occur in rural areas, nearly 69% of the fatal crashes occur there. Similar results are found for the highest severity non-fatal crashes. This is obviously the result of higher impact speeds in the rural areas. Note that additional causes of increased severity are given in the Factors Affecting Severity Section, below.
9. Rural/Urban ID Crash Frequency – Not only are impaired driving crashes more severe in rural areas, but the frequency of ID crashes in rural areas is quite high, despite the much lower population and traffic volumes. ID crashes occurred in about 42% rural as compared to about 58% urban. While only 21.76% of the crashes are expected in the rural areas, the ID proportion of crashes in the rural areas is 42.15%, or about double its expected value (significant odds ratio = 1.937).
10. Highway Classifications – County roads had 2.16 times their expected proportion of crashes, and State routes had about 5% more than expected. All other roadway classifications were under-represented. County road characteristics no doubt contribute to the crash frequency. County roads are also known to be less “crashworthy” (i.e., they result in more severe crashes at comparable impact speeds).
11. Locale – Reflecting the rural over-representation, open country and residential roadways show a high level of over-representation (1.672 and 1.315 odds ratios, respectively) as compared with the more urbanized area types, especially Shopping or Business, which only has about half of its expected proportion.

Time Factors

12. Year – The earlier years (2014 and 2015) are the most over-represented. Odds ratios come down almost linearly each year, with 2018 being the most under-represented for ID crashes. The total number of non-ID crashes has increased dramatically from 127,692 in 2014 to 153,956 in 2018. Reported ID crashes comparing these two years have decreased from 5,967 in 2014 to 5,699 in 2018.
13. Month – There only significant over-representations by month were in March, July and February, indicating the number of ID crashes correlated fairly well with the other crashes during the rest of the months, with the exception of September and August, which were significantly under-represented.
14. Day of the Week – This analysis is not only useful for the typical work week, but it also reflects the typical “holiday weekend” patterns. The days can be classified as follows:
 1. Typical work weekday (Monday through Thursday) – these days are under-represented in ID crashes due to the need for many to go to work the following day.

2. Friday – this pattern is also reflected in the day before a weekend (or holiday), i.e., before a day off. The high ID frequency on this day is due to those who are getting an early substance abuse start to the weekend, recognizing they have no work responsibilities the following day. However, the large numbers of non-ID crashes on Fridays causes Friday to be under-represented.
 3. Saturday – the “Saturday” pattern is the worse for ID crashes in that it has both an early morning component (like Sunday) and a late night component (like Friday). So, it could be viewed as a combination of the typical Friday and Sunday.
 4. Sunday – since this is the last day of a holiday sequence or weekend, its over-representation comes mainly from those who start on Saturday night and do not complete their use of alcohol/drugs until after midnight. Sunday is the most over-represented day with over twice its expected number of ID crashes; however, the low number of non-ID crashes on Sunday also contributes to this over-representation.
15. “Holiday Weekends” – these can be viewed as a sequence of the weekend-pattern sequence. For example, the Wednesday before Thanksgiving would follow the Friday pattern assuming most are at work on Wednesday. The Thursday, Friday and Saturday would follow the Saturday pattern, and the Sunday at the end of the weekend would follow the typical Sunday pattern. This is the reason long holiday events (i.e., several days off) can be more prone to ID crashes than the typical weekend. Three-day weekends typically give Monday off, so Monday would behave like the typical Sunday, and both the Saturday and Sunday would follow the Saturday pattern.
 16. Time of Day – The extent to which night-time hours are over-represented is quite striking. Optimal times for ID enforcement would start immediately following any rush hour details, and would continue through at least 3:00 to 3:59 AM (odds ratio 5.839). The 4-5 and 5-6 AM hours are also significantly over-represented with odds ratios of 3.606 and 1.543, respectively.
 17. Time of Day by Day of the Week – This quantifies the extent of the crash concentrations on Friday nights, Saturday mornings and Saturday nights and early Sunday mornings. This is a very useful summary for deploying selective enforcement details, especially during the weekend hours.

Factors Affecting Severity

18. ID Crash Severity - The rate of injuries and fatalities are consistently higher in ID crashes than that of non-ID crashes. Fatality crashes are nearly 7.4 times their expected proportion, while the two highest non-fatal injury classifications have over twice their expected values when compared with non-ID crashes. The odds

ratio is over three (3.184) for the highest non-fatal classification, Incapacitation Injury. The other attributes analyzed in this section give the reasons for this disparity.

19. Speed at Impact – All impact speeds above 45 MPH (with the sole exception of 66-70 MPH) are dramatically over-represented with odds ratios above 2.00. See the next attribute. The over-representations increase, as expected, with increased speed with 46-50 MPH having an odds ratio of 2.173 and 96-100 MPH being 10.922. Past analyses have found the general rule of thumb that for every 10 MPH increase in speeds, the probability of the crash being fatal doubles. This was validated in the discussion of the cross-tabulation of impact speeds by severity.
20. Restraint Use by Impaired Drivers – The impaired drivers are close to 8 times more likely to be unrestrained than the non-ID causal drivers. Clearly ID drivers lose a good part of their concept of risk when they are willing to drive while impaired.
21. Fatality Crashes by Restraint Use for Impaired Drivers – A comparison of the probability of a fatal crash indicates that a fatality is almost three (2.82) times more likely if the impaired driver is not using proper restraints. Generally, one in 30 ID crashes are fatal; but without restraints, the fatal crash ratio is 1 in about 11. So the combined effect of lower restraint use and higher speeds is a devastating combination that accounts for much of the high lethality of ID crashes.
22. Number Injured (Including Fatalities) – Not only are ID crashes generally more severe to the driver, but the number of multiple injuries in these ID crashes is over-represented as well. This might have something to do with the preference of those going out to socialize to take some of their friends with them. All of the multiple injury categories are over-represented in the ID crashes, as is the single injury classification. All of the multiple injury classifications above 4 injuries had at least twice their expectations, and the 1, 2 and 3 injuries all had about twice their expectations.
23. Police Arrival Delay – ID crashes generally had longer police arrival delays; in this case all arrival delays over 31 minutes were over-represented. There can be little doubt this has to do with the rural nature of these crashes and the potential that the late night occurrence might not be discovered for some time. Delay times of over 60 minutes all had over twice their expected proportions.
24. EMS Arrival Delay – Higher EMS delays were over-represented for impaired driving injury crashes in all categories above ten minutes, and dramatically (over twice the expected) for the very longer times of 61 minutes and above. This obviously contributes to the severity of crashes and the chances the crash results in one or more fatalities. As for the very long times, these might be due to the delay in discovering the crash as much as their generally over-represented rural locations.

Driver and Vehicle Demographics

25. Driver Age – Younger (16-20 year old) drivers have a very serious problem in crash causation even in the absence of impairment. However, these crashes are not generally caused by ID up until ages 19 and 20, and even at these ages they are under-represented. At 22, the first age over-representation takes place and continues on to age 55. There is a bi-modal distribution in the 21-54 year olds; 21 through about 41, and a second group from 42 to 56. Generally, the first of these might be classified as largely social drinkers; while it is inescapable that the middle aged caused ID crashes would be largely attributed to problem drinkers or those addicted to drugs.
26. Impaired Driver Gender – Males are a far greater issue in ID crashes, and if there are countermeasures that can be directed toward them, doing so would be much more cost-effective than those not gender based, all other things being equal. The ration of male to female causal ID drivers is over 3 to 1.
27. Causal Vehicle Type – Pick-ups had a significant over-representation and came out at the top of the Max Gain order because of their large number of ID involvements. Motorcycles were also highly over-represented. Also of interest is the proportion of pedestrians that involve ID, which is close to three times their expected number. ATVs had the highest over-representation (Odds Ratio = 4.445), perhaps because drivers do not believe the ID laws apply to them as long as they are not on the public highways. In order of their number of over-represented crashes, the following had significant odds ratios: Pick-Up (Four-Tire Light Truck), Passenger Car, Motorcycle, Pedestrian, and 4-Wheel Off Road ATV.
28. Driver License Status – ID crashes are very highly over-represented in causal drivers without legitimate licenses challenging the effectiveness of license suspension and revocations as a traffic safety countermeasure, at least after the fact. There is no way to estimate its deterrent value. Revoked is over-represented for the ID causal drivers by close to eight times its expected proportion (compared to non-ID crashes). The following gives the highest over-represented categories along with the number of *additional* crashes (in parenthesis) were attributed to the over-representation: Suspended (1845), Revoked (1788), Not Applicable or Unlicensed (1535), and Expired (252).
29. Driver Employment Status – ID driver unemployment rate is 37.74%, and its proportion is about 78% higher than expected. This factor will be watched carefully going forward.

Judicial Analysis

The State has enacted many laws proven to be sound, rigorous, and easy to enforce and administer. However, it is clear efforts must continue, both in strengthening existing laws and in passing new laws that address issues developing within our society. Every attempt is being made to assure that these laws clearly define offenses, contain provisions that facilitate effective enforcement, and establish effective punitive measures for deterrence. Legislative efforts have been, and will continue to have goals of defining illegal activities and remedies, which include:

12. Driving while impaired by alcohol or other drugs (whether illegal, prescription or over-the-counter) and treating both offenses in a comparable matter with similar punitive and remedial programs;
13. Driving with a blood alcohol concentration (BAC) limit of .08 grams per deciliter, making it illegal “per se” to operate a vehicle at or above this level without having to prove impairment;
14. Driving with a high BAC (i.e., .15 BAC or greater) with enhanced sanctions above the standard impaired driving offense;
15. Zero Tolerance for underage drivers, making it illegal “per se” for people under age 21 to drive with any measurable amount of alcohol in their system (i.e., .02 BAC or greater);
16. Repeat offender increasing sanctions for each subsequent offense;
17. BAC test refusal with sanctions at least as strict, or stricter, than a high BAC offense;
18. Driving with a license suspended or revoked for impaired driving, with vehicular homicide or causing personal injury while driving impaired as separate offenses with additional sanctions;
19. Open container laws, prohibiting possession or consumption of any open alcoholic beverage in the passenger area of a motor vehicle located on a public highway or right-of-way;
20. Authorization of law enforcement agencies to conduct sobriety checkpoints, (i.e., stop vehicles on a nondiscriminatory basis to determine whether operators are driving while impaired by alcohol or other drugs);
21. Authorization of law enforcement to use passive alcohol sensors to improve the detection of alcohol in drivers;
22. Authorization of law enforcement to obtain more than one chemical test from an operator suspected of impaired driving, including preliminary breath tests, evidential breath tests, and screening and confirmatory tests for alcohol or other impairing drugs; and
23. Requiring law enforcement to conduct mandatory BAC testing of drivers involved in fatal crashes.

While most of the above provisions have been implemented in the State, they continue to be listed above since many of them require either strengthening or clarification.

In addition to the above general structure for the laws themselves, the following structure is part of the plan for establishing effective penalties:

24. Administrative license suspension or revocation for failing or refusing to submit to a BAC or other drug test;
25. Prompt and certain administrative license suspension of at least 90 days for first-time offenders determined by chemical test(s) to have a BAC at or above the State’s “per se” level or of at least 15 days followed immediately by a restricted, provisional or conditional license for at least 75 days, if such license restricts the offender to operating only vehicles equipped with an ignition interlock;
26. Enhanced penalties for BAC test refusals, high BAC, repeat offenders, driving with a suspended or revoked license, driving impaired with a minor in the vehicle, vehicular homicide, or causing personal injury while driving impaired, including longer license suspension or revocation; installation of ignition interlock devices; license plate confiscation; vehicle impoundment, immobilization or forfeiture; intensive supervision and electronic monitoring; and threat of imprisonment;
27. Assessment for alcohol or other drug abuse problems for all impaired driving offenders and, as appropriate, treatment, abstention from use of alcohol and other drugs, and frequent monitoring; and
28. Driver license suspension for people under age 21 for any violation of law involving the use or possession of alcohol or illicit drugs.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-1) Number of traffic fatalities (FARS)	2020	5 Year	964
2020	C-2) Number of serious injuries in traffic crashes (State crash data files)	2020	5 Year	8,143
2020	C-3) Fatalities/VMT (FARS, FHWA)	2020	5 Year	1.35
2020	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	2020	5 Year	257

Countermeasure Strategies in Program Area

Countermeasure Strategy

Drug Recognition Expert (DRE) Training
High Visibility Enforcement
Prosecutor Training

Countermeasure Strategy: Drug Recognition Expert (DRE) Training

Program Area: **Impaired Driving (Drug and Alcohol)**

Project Safety Impacts

Without proper training and adequate resources, the average law enforcement officer will find that convicting the drug impaired driver is almost infinitely more difficult than convicting the alcohol impaired driver. The presence of DREs in Alabama will impact both the highway and the courtroom. A Drug Recognition Expert Program (DRE) will be funded in order to train and certify law enforcement officers from various agencies around Alabama as Drug Recognition Experts. Each certified DRE will be able to diagnose an individual arrested for DUI to be either under the influence of some drug other than alcohol or suffering from a medical issue. If the DRE determines the defendant is under the influence of a drug, then the DRE will identify the category or categories of impairing drugs. The training staff of certified DRE instructors will evaluate the achievement and field certifications. The state's DRE Coordinator will conduct continuous evaluations of certified DREs based on their level of activity, number of evaluations and toxicological confirmation rates. The DRE Coordinator will also assure the DREs fulfill their two-year recertification requirement.

A multidisciplinary approach and close coordination among all components of the criminal justice system was sought in developing the strategies to combat the issue of Impaired Driving. This set of countermeasure approaches includes the entire criminal justice system, including laws, enforcement, prosecution, adjudication, criminal and administrative sanctions and related communications. As detailed in the Alabama Impaired Driving Strategic Plan, the state's goal is to achieve both *specific* and *general* deterrence through goals defined as:

1. **Specific deterrence** focuses on individual offenders and seeks to ensure that impaired drivers will be detected, arrested, prosecuted, and subject to swift, sure, and appropriate sanctions, and thereby reduce recidivism;
2. **General deterrence** seeks to increase the public perception that impaired drivers will face severe consequences, thus discouraging all individuals from driving impaired.

Projected traffic safety impacts of the DRE program include increased number of DWI citations.

Linkage Between Program Area

As part of the Alabama Office of Highway Safety (AOHS) traffic safety planning effort, special problem identification studies are performed for the various program areas chosen. When any new issues arise, or for all countermeasures for which discretionary funds are expended, special analytical procedures are employed. The process is as follows:

3. Analyze results of problem identification to set performance measure targets for the program year
4. Evaluate the potential overall countermeasure strategies at a very high level in the light of evidence-based information that is generated primarily from crash records with some supplements provided by citation records.
5. Select the overall programs that will be implemented from a strategic point of view.
6. Use further analytics to fine-tune the particular countermeasures that will be implemented, e.g., the specific locations for selective enforcement and determine allocation of funds.

This analytical review includes all of the countermeasures that are presented in this plan as well as the particular tactics to be applied in their implementations

After reviewing performance goals, the AOHS then examines and selects countermeasures to help achieve the state's targets. The following outlines the strategies of countermeasures to be applied during the fiscal year:

7. Planning and Administration – The Alabama Office of Highway Safety (AOHS) will continue to perform the overall administrative functions for the planned programs and projects.
8. Community Traffic Safety Programs/Law Enforcement Liaison (CTSP/LEL) – will provide coordination for the local implementations of the statewide occupant protection program, and the CTSP/LEL Coordinators and the administrative support for their offices will be maintained.
9. The University of Alabama Center for Advanced Public Safety (UA-CAPS) will provide the information required for allocating traffic safety resources in an optimal way, and they will continue to be supported in providing AOHS with Alabama crash and traffic safety data throughout the year.
10. Conduct four local Hotspot Evidence-Based Enforcement Program (E-BEP) projects, one within each of the CTSP/LEL regions focusing on hotspot locations.
11. Perform a statewide E-BE project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA), also focusing on hotspot locations.
12. Continue the Law Enforcement Liaison (LEL) programs statewide. Beginning in FY 2007, this program was absorbed by the regional CTSP/LEL offices and was funded through the Community Traffic Safety Projects.
13. Participate in national and regional High Visibility Enforcement campaign on the statewide level, paired with a corresponding mass media campaign.
14. Fund and support the Drug Recognition Expert Training Program

Funding allocation is determined by evaluating the threshold of resources that are required to carry out each planned activity for the duration of the project in a calculated and realistic manner.

Rationale

Alabama is one of 49 states and the District of Columbia to implement the Drug Evaluation and Classification Program (DECP). At the heart of this program is the Drug Recognition Expert (DRE). A DRE is a law enforcement officer trained in detecting and recognizing impairment caused by substances other than alcohol. The Los Angeles Police Department originated the program in the early 1970s when officers noticed that many of the individuals arrested for driving under the influence had very low or zero alcohol concentrations. The officers reasonably suspected that the arrestees were under the influence of drugs, but lacked the knowledge and skills to support their suspicions. Working with medical doctors, research psychologists, and other medical professionals they developed a simple, standardized procedure for recognizing drug influence and impairment, which led to the first DRE program. In the early 1980s, the National Highway Traffic Safety Administration (NHTSA) took notice of the LAPD's DRE program. The two agencies collaborated to develop a standardized DRE protocol which led to the DEC program. During the ensuing years, NHTSA and various other agencies and research groups examined the DEC program. Their studies demonstrated that a properly trained DRE can successfully identify drug impairment and accurately determine the category of drugs causing such impairment. Recent studies conducted by NHTSA have established the value of DRE programs.

A continuation and expansion of this program in Alabama will enable law enforcement officers to better detect, apprehend, assess, document, and subsequently help the prosecutor prove, in court, the defendant was under the influence of a drug while driving (or committing any other improper act, e.g., domestic violence and homicide). In order to implement the program successfully in Alabama, AOHS will fund a State DRE coordinator to facilitate and plan training courses, reimburse allowable travel expenses for trainees, as well as associated costs with hosting training courses.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
M5CS-20-ID-M5	Drug Recognition Expert Training Program

Planned Activity: Drug Recognition Expert Training Program

Planned activity number: **M5CS-20-ID-M5**

Primary Countermeasure Strategy ID: **Drug Recognition Expert (DRE) Training**

Planned Activity Description

The goal of the Drug Recognition Expert Program (DRE) is to train and certify law enforcement officers from various agencies around Alabama as Drug Recognition Experts. Each certified DRE will be able to diagnose an individual arrested for DUI to be either under the influence of some drug other than alcohol or suffering from a medical issue. If the DRE determines the defendant is under the influence of a drug, then the DRE will identify the category or categories of impairing drugs.

Intended Subrecipients

Alabama Law Enforcement Agency

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Drug Recognition Expert (DRE) Training

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)	\$320,000.00	\$80,000.00	

Countermeasure Strategy: High Visibility Enforcement

Program Area: **Impaired Driving (Drug and Alcohol)**

Project Safety Impacts

To implement the State's Evidence-Based Enforcement Plan, there will be four local Selective Traffic Enforcement Program (STEP) projects during the coming year as well as one statewide STEP project. Each of these STEP projects will focus on Hotspot crashes and the problem locations that have been identified across the state. One STEP project will take place in each of the four CTSP/LEL regions and the statewide STEP project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA). By conducting these STEP projects, additional efforts can be focused on the reduction of impaired driving related crashes and speed related crashes. The Law Enforcement activity will be sustained for twelve (12) months. The enforcement effort is evidence-based, with the objective of preventing traffic violations, crashes, and crash fatalities and injuries in locations most at risk. The enforcement program will continuously be evaluated and the necessary adjustment will be made.

There will also be four local Alcohol High Visibility Enforcement projects during the coming year as well as one statewide Alcohol High Visibility Enforcement project. Each of these projects will focus on alcohol related Hotspot crashes and the problem locations that have been identified across the state. One project will take place in each of the four CTSP/LEL regions and the statewide project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA). By conducting these HVE projects, additional evidence-based efforts can be focused on the reduction of impaired driving related crashes. The law enforcement activity will be sustained for twelve (12) months. However, at least three additional “Drive Sober or Get Pulled Over” mobilizations will take place during holiday periods known for increased travel and a higher potential for impaired motorists to be on the roadways and in conjunction with a paid media campaign. These periods include Christmas and New Year’s, St. Patrick’s Day, Cinco de Mayo and the Fourth of July. For the fifth year since 2015, this HVE campaign will be accompanied by a comprehensive, multiplatform media campaign throughout the state. The enforcement effort is evidence-based, which will prevent traffic violations, crashes, and crash fatalities and injuries in locations most at risk. The enforcement program will continuously be evaluated and the necessary adjustments will be made. *NHTSA Countermeasures that Work* (Page 1-21) reviewed intensive alcohol selective enforcement efforts such as publicized saturation patrol programs. These patrols aim to deter driving after drinking by increasing the perceived risk of arrest.

The value of such integrated enforcement efforts is demonstrated by studies referenced in Page 1-24 of *NHTSA Countermeasures that Work*. In one study a three-site evaluation of integrated impaired driving, speed, and seat belt use enforcement indicated that “sites that combined high publicity with increased enforcement reduced crashes likely to involve alcohol (such as single-vehicle nighttime crashes) by 10% to 35%. Another study of comprehensive programs in six communities used integrated enforcement methods where it was reported that these programs reduced fatal crashes involving alcohol by 42%. About half the speeding drivers detected through these enforcement activities had been drinking and about half the impaired drivers were speeding. It is well established that the same risk-taking motivations that seem to compel some drivers to be impaired and speed also leads them to avoid using proper restraints.

They recommend saturation patrols that are publicized extensively and conducted regularly, as well as roving patrols in which individual patrol officers concentrate on detecting and arresting impaired drivers in an area where impaired driving is common or where alcohol-involved crashes have occurred. A demonstration program in Michigan, where sobriety checkpoints are prohibited by State law, revealed that saturation patrols can be effective in reducing alcohol-related fatal crashes when accompanied by intensive publicity.

It is projected that High Visibility Enforcement projects in each of the CTSP/LEL and State Trooper Regions conducted year round and during targeted holiday periods, when tied with a multimedia PI&E campaign will achieve the following :

15. Reduce of the number and severity of the hotspots found over time.
16. Increase of the number of citations by citation type issued over time.

Linkage Between Program Area

As part of the Alabama Office of Highway Safety (AOHS) traffic safety planning effort, special problem identification studies are performed for the various program areas chosen. When any new issues arise, or for all countermeasures for which discretionary funds are expended, special analytical procedures are employed. The process is as follows:

17. Analyze results of problem identification to set performance measure targets for the program year
18. Evaluate the potential overall countermeasure strategies at a very high level in the light of evidence-based information that is generated primarily from crash records with some supplements provided by citation records.
19. Select the overall programs that will be implemented from a strategic point of view.
20. Use further analytics to fine-tune the particular countermeasures that will be implemented, e.g., the specific locations for selective enforcement and determine allocation of funds.

This analytical review includes all of the countermeasures that are presented in this plan as well as the particular tactics to be applied in their implementations

After reviewing performance goals, the AOHS then examines and selects countermeasures to help achieve the state's targets. The following outlines the strategies of countermeasures to be applied during FY 2020:

21. Community Traffic Safety Programs/Law Enforcement Liaison (CTSP/LEL) – will provide coordination for the local implementations of the statewide occupant protection program, and the CTSP/LEL Coordinators and the administrative support for their offices will be maintained.
22. The University of Alabama Center for Advanced Public Safety (UA-CAPS) will provide the information required for allocating traffic safety resources in an optimal way, and they will continue to be supported in providing AOHS with Alabama crash and traffic safety data throughout the year.
23. Conduct four local Hotspot Evidence-Based Enforcement Program (E-BEP) projects, one within each of the CTSP/LEL regions focusing on hotspot locations.
24. Perform a statewide E-BE project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA), also focusing on hotspot locations.
25. Continue the Law Enforcement Liaison (LEL) programs statewide. Beginning in FY 2007, this program was absorbed by the regional CTSP/LEL offices and was funded through the Community Traffic Safety Projects. This funding arrangement will continue in FY 2020.

26. Participate in national and regional High Visibility Enforcement campaign on the statewide level, paired with a corresponding mass media campaign.

Funding allocation is determined by evaluating the threshold of resources that are required to carry out each planned activity for the duration of the project in a calculated and realistic manner.

Rationale

AOHS's problem identification process analyzes the data for crashes and determines all of the demographics related to them (e.g., the who, what, where, when, how, how old, and the “why” of crashes involving non-restrained occupants). The goal is to (1) determine the most effective countermeasures that can be applied, and once these are defined, (2) identify the best tactics to be applied within each.

This starts by determining those types of crashes that were going to be targeted for occupant protection countermeasure implementation. For example, a recent study determined a very strong correlation between Restraint Deficiencies (RD) and other risky driving characteristics. In particular, DUI (alcohol and other drugs) and speed were correlated with non-use, and younger drivers 16-25 were particularly vulnerable. Young drivers are particularly susceptible to risk taking behaviors due to the fact that the part of their brain that properly assesses risk is not fully developed until age 25. While the average seatbelt use rate for all occupants has been measured above 90%, for those involved in fatal crashes the use rate was approximately 45%.

(See Fatalities at <http://www.safehomealabama.gov/PlansAnalysis/FARSandALFatalities.aspx>)

Evidence-based enforcement (E-BE) has been determined to be one of the most effective methods for increasing restraint use in general. This requires that specific locations be identified where there were concentrations of crashes involving unrestrained occupants. Once these hotspots are defined using the Critical Analysis Reporting Environment (CARE) software, the Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Coordinators across the state are given information on the hotspot locations for the state as a whole. They were also provided detailed hotspot reports specific to their region to assist them in focusing their area efforts. Using the reports and maps developed for each region, the CTSP/LEL Coordinators develop plans, including the time schedule and work assignments, for their respective regions that focuses on the hotspot locations.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
M5HVE-20-DS-M5	Drive Sober or Get Pulled Over High Visibility Enforcement Campaign
M5HVE-20-ID-M5	Impaired Driving - High Visibility Enforcement Campaign
M5PEM-20-ID-M5	Impaired Driving- Paid Media Campaign

PT-20-FP-PT	Evidence-Based Traffic Safety Enforcement Program
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Planned Activity: Drive Sober or Get Pulled Over High Visibility Enforcement Campaign

Planned activity number: **M5HVE-20-DS-M5**

Primary Countermeasure Strategy ID: **High Visibility Enforcement**

Planned Activity Description

In addition to the paid media, we will have a High Visibility Enforcement program for a two week period. The enforcement program will consist of members from the Municipal Law Enforcement Agencies, County Sheriffs and Alabama Law Enforcement Agency. This campaign will begin in August and conclude on Labor Day.

Intended Subrecipients

Regional CTSP/LEL offices

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
High Visibility Enforcement
High Visibility Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405d Impaired Driving Mid	405d Mid HVE (FAST)	\$200,000.00	\$50,000.00	

Planned Activity: Impaired Driving - High Visibility Enforcement Campaign

Planned activity number: **M5HVE-20-ID-M5**

Primary Countermeasure Strategy ID: **High Visibility Enforcement**

Planned Activity Description

Intended Subrecipients

The Alabama Law Enforcement Agency and Regional CTSP/LEL offices

Countermeasure strategies

Countermeasure strategies in this planned activity

High Visibility Enforcement
High Visibility Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405d Impaired Driving Mid	405d Mid HVE (FAST)	\$1,100,000.00	\$275,000.00	

Planned Activity: Impaired Driving- Paid Media Campaign

Planned activity number: **M5PEM-20-ID-M5**

Primary Countermeasure Strategy ID: **High Visibility Enforcement**

Planned Activity Description

As a part of the nationwide impaired driving campaign to reduce impaired driving-related fatalities, Alabama will participate in High Visibility Impaired Driving Enforcement Paid Media Campaigns for the fifth year since 2015. The campaign messages will be placed and aired during holiday periods known for increased travel and a higher potential for impaired motorists to be on the roadways. These periods include Christmas and New Year's, St. Patrick's Day, Cinco de Mayo and the Fourth of July. Along with traditional print, radio and television advertisements, Auburn University will use additional means of reaching the motoring public. Through professional services contracts, Alabama will be also able to place campaign messages in movie theatres, as well as participate in an increased online presence via web ads and newer mediums such as iHeart Radio, Spotify and Pandora.

Intended Subrecipients

Auburn University

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
High Visibility Enforcement
High Visibility Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405d Impaired Driving Mid	405d Mid Paid/Earned Media (FAST)	\$700,000.00	\$175,000.00	

Planned Activity: Evidence-Based Traffic Safety Enforcement Program

Planned activity number: **PT-20-FP-PT**

Primary Countermeasure Strategy ID: **High Visibility Enforcement**

Planned Activity Description

To implement the State’s Evidence-Based Enforcement Plan, there will be four local Selective Traffic Enforcement Program (STEP) projects during the coming year as well as one statewide STEP project. Each of these STEP projects will focus on Hotspot crashes and the problem locations that have been identified across the state. One STEP project will take place in each of the four CTSP/LEL regions and the statewide STEP project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA). By conducting these STEP projects, additional efforts can be focused on the reduction of impaired driving related crashes and speed related crashes. The Law Enforcement activity will be sustained for twelve (12) months. The enforcement effort is evidence-based, with the objective of preventing traffic violations, crashes, and crash fatalities and injuries in locations most at risk. The enforcement program will continuously be evaluated and the necessary adjustment will be made.

Intended Subrecipients

The Alabama Law Enforcement Agency and Regional CTSP/LEL offices

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
High Visibility Enforcement
High Visibility Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	\$280,000,000.00	\$700,000.00	\$2,000,000.00

Countermeasure Strategy: Prosecutor Training

Program Area: **Impaired Driving (Drug and Alcohol)**

Project Safety Impacts

According to *NHTSA Countermeasures that Work* (Page 1-30), “DWI cases can be highly complex and difficult to prosecute, yet they are often assigned to the least experienced prosecutors”. In one survey, about half of prosecutors and judges said the training and education they received prior to assuming their position was inadequate for preparing them to prosecute and preside over DWI cases (Robertson & Simpson, 2002a). Traffic Safety Resource Prosecutors (TSRPs) are current (or former) prosecutors who specialize in the prosecution of traffic crimes, and DWI cases in particular. They provide training, education, and technical support to other prosecutors and law enforcement agencies within their State. Judicial Outreach Liaisons (JOLs) are current (or former) judges who are experienced in handling DWI cases. Many JOLs have presided over DWI or Drug courts. They share information and provide education to judges and other court personnel about DWI cases. ”

A multidisciplinary approach and close coordination among all components of the criminal justice system was sought in developing the strategies to combat the issue of Impaired Driving. This set of countermeasure approaches includes the entire criminal justice system, including laws, enforcement, prosecution, adjudication, criminal and administrative sanctions and related communications. As detailed in the Alabama Impaired Driving Strategic Plan, the state's goal is to achieve both *specific* and *general* deterrence through goals defined as:

27. **Specific deterrence** focuses on individual offenders and seeks to ensure that impaired drivers will be detected, arrested, prosecuted, and subject to swift, sure, and appropriate sanctions, and thereby reduce recidivism;
28. **General deterrence** seeks to increase the public perception that impaired drivers will face severe consequences, thus discouraging all individuals from driving impaired.

By offering educational opportunities and technical support throughout the state, courts are better prepared to prosecute DWI offenders. AOHS will allocate sufficient funds to allow for a full time Traffic Safety Resource Prosecutor to provide training requirements to all District Attorneys, ADA’s and their staff in order to increase the level of readiness and proficiency for the effective prosecution of traffic impaired driving cases. Additionally the goals of this program will emphasize:

29. Practical Impaired Driving Course: Nuts & Bolts

30. Handling the DUI Experts
31. Impaired Driving Legal Updates
32. Search & Seizure
33. Jury Selection

Linkage Between Program Area

As part of the Alabama Office of Highway Safety (AOHS) traffic safety planning effort, special problem identification studies are performed for the various program areas chosen. When any new issues arise, or for all countermeasures for which discretionary funds are expended, special analytical procedures are employed. The process is as follows:

34. Analyze results of problem identification to set performance measure targets for the program year
35. Evaluate the potential overall countermeasure strategies at a very high level in the light of evidence-based information that is generated primarily from crash records with some supplements provided by citation records.
36. Select the overall programs that will be implemented from a strategic point of view.
37. Use further analytics to fine-tune the particular countermeasures that will be implemented, e.g., the specific locations for selective enforcement and determine allocation of funds.

After reviewing performance goals, the AOHS then examines and selects countermeasures to help achieve the state's targets. The following outlines the strategies of countermeasures to be applied during the fiscal year:

38. Planning and Administration – The Alabama Office of Highway Safety (AOHS) will continue to perform the overall administrative functions for the planned programs and projects.
39. Community Traffic Safety Programs/Law Enforcement Liaison (CTSP/LEL) – will provide coordination for the local implementations of the statewide occupant protection program, and the CTSP/LEL Coordinators and the administrative support for their offices will be maintained.
40. The University of Alabama Center for Advanced Public Safety (UA-CAPS) will provide the information required for allocating traffic safety resources in an optimal way, and they will continue to be supported in providing AOHS with Alabama crash and traffic safety data throughout the year.
41. Conduct four local Hotspot Evidence-Based Enforcement Program (E-BEP) projects, one within each of the CTSP/LEL regions focusing on hotspot locations.
42. Perform a statewide E-BE project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA), also focusing on hotspot locations.

- 43. Continue the Law Enforcement Liaison (LEL) programs statewide. Beginning in FY 2007, this program was absorbed by the regional CTSP/LEL offices and was funded through the Community Traffic Safety Projects. This funding arrangement will continue.
- 44. Participate in national and regional High Visibility Enforcement campaign on the statewide level, paired with a corresponding mass media campaign.
- 45. Fund and support the Drug Recognition Expert Training Program
- 46. Continue to fund Traffic Safety Resource Prosecutor Program

Funding allocation is determined by evaluating the threshold of resources that are required to carry out each planned activity for the duration of the project in a calculated and realistic manner.

Rationale

While Alabama has not been as permissive as many states in their marijuana laws, it has seen a general increase in ID caused by drugs as opposed to alcohol. The proportion of ID drug crashes has increased from its low of 14.0% in 2006 to the most recent high of close to 40%. This is an alarming trend that is indicative of the National increased social acceptance of drug use. The under-reporting of drug cases must be much higher than alcohol cases since there is a general inability of most law enforcement officers to identify many of the drug-related ID cases. Alabama has taken this problem identification and continues to recognize the importance of offering educational training to judges, prosecutors, and law enforcement officers to better identify and litigate impaired driving cases.

The TSRP program will be a utilized resource in the battle against impaired driving and the problems being faced both on the law enforcement level and the prosecutorial level. It will focus on the overall goal of increasing the level of readiness and proficiency for the effective investigation, preparation, and prosecution of traffic related cases involving impaired driving from misdemeanor offenses to traffic homicide cases. The TSRP will further serve as a liaison while providing technical assistance, training, and counsel to prosecutors and law enforcement, as well as information to communities regarding the dangers of driving under the influence.

Funding for the TSRP program was determined by identifying the costs necessary for any planned activity associated with the countermeasure.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
FP-20-FP-AL	Traffic Safety Resource Prosecutor Program

Planned Activity: Traffic Safety Resource Prosecutor Program

Planned activity number: **FP-20-FP-AL**

Primary Countermeasure Strategy ID: **Prosecutor Training**

Planned Activity Description

Goals for the TSRP program are to provide training requirements to all District Attorneys, ADAs and their staff in order to increase the level of readiness and proficiency for the effective prosecution of traffic impaired driving cases.

Intended Subrecipients

Office of Prosecution Services

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Prosecutor Training

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act NHTSA 402	Alcohol (FAST)	\$175,000.00	\$35,000.00	\$0.00

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Description of Highway Safety Problems

The central basis for the development of occupant restraint countermeasures by the Alabama Office of Highway Safety (AOHS) is the strategic Occupant Protection Plan, which was developed for the state in FY2012, and it has been updated each year in the May-June time frame. This plan is evidence-based to reflect the particular occupant protection issues within the State. The major goal of the plan is to assure that resources dedicated to occupant protection are allocated to bring about the maximum traffic safety benefits to the roadway users of the State. The plan considers all restraint programs to be conducted in Alabama over a five year planning horizon with special emphasis on those that are proposed to be funded under the 405b Occupant Protection Grants and 402 Grants section for FY 2020. The purpose of the 405b program is to “encourage States to adopt and implement occupant protection laws and programs to reduce highway deaths and injuries from individuals riding unrestrained in motor vehicles.”

Having a front seat occupant seatbelt usage rate measured in FY2018 at 91.8% qualifies Alabama as a high seat belt use state. This means that the State qualifies for special restraint funding by (1) submitting an occupant protection plan, (2) participating in the Click It or Ticket campaign, (3) maintaining child restraint inspection stations, and (4) having an adequate number of child passenger safety technicians. Alabama meets all of these requirements.

The overall problem identification for the Alabama Highway Safety Plan (HSP) begins with the most recently generated data for Table 1. This arranges crash types by the number of fatalities and sets a priority if, in fact, “all other things were equal.” But all other things are not equal, and further analysis is needed to account for countermeasure effectiveness and cost. In addition, the categories of Crash Types are not mutually exclusive, so there are interactions between them that need to be given further analysis. For example, any of the crash causes might occur with or without occupants being properly restrained. As an example, certain age groups have been found more inclined to use restraints than others. Nevertheless, Table 1 serves effectively in giving the traffic safety community a high level view of the source of fatalities as well as how these fatalities are also reflected in the lower severity crashes.

Table 1:
Top Fatality Causes; Alabama CY2018 Data

Crash Type (Causal Driver)	Fatal Number	Fatal %	Injuries	Injury %	PDO No.	PDO %	Total
1. Seat Belt	372	3.67%	4,073	40.14%	5,703	56.20%	10,148

Restraint Deficient*							
2. Speed Involved	199	1.94%	3,259	31.85%	6,774	66.20%	10,232
3. ID/DUI All Substances	169	3.05%	2,135	38.59%	3,228	58.35%	5,532
4. Hit Obstacle on Roadside	124	1.87%	2,126	32.14%	4,365	65.99%	6,615
5. Pedestrian, Bicycle, School Bus	117	7.04%	939	56.53%	605	36.42%	1,661
6. Fail to Yield or "Ran ..." (All)	114	0.37%	7,676	24.92%	23,010	74.71%	30,800
7. Mature (65 or Older) Causal	112	0.75%	3,249	21.76%	11,567	77.49%	14,928
8. Pedestrian Involved	106	13.97%	621	81.82%	32	4.22%	759
9. License Deficiency Causal Driver	103	1.59%	2,018	31.22%	4,342	67.18%	6,463
10. Wrong Way Items	99	2.10%	1,042	22.06%	3,582	75.84%	4,723
11. Youth (16-20) Causal Driver	86	0.37%	5,110	21.91%	18,129	77.72%	23,325

12. Motorcycle Involved	76	4.93%	1,065	69.02%	402	26.05%	1,543
13. Aggressive Operation	70	2.44%	856	29.89%	1,938	67.67%	2,864
14. Distracted Driving	43	0.29%	3208	21.93%	11,380	77.78%	14,631
15. Drowsy Driving	38	1.05%	1383	38.04%	2,215	60.92%	3,636
16. Large Truck Involved	36	0.52%	1,432	20.49%	5521	79.00%	6,989
17. Utility Pole	29	1.15%	877	34.90%	1,607	63.95%	2,513
18. Workzone Related	27	0.72%	770	20.50%	2,959	78.78%	3,756
19. Vehicle Defects – All	12	0.36%	690	20.70%	2,631	78.94%	3,333
20. Vision Obscured	10	0.84%	320	26.87%	861	72.29%	1,191
21. Bicycle	9	3.53%	206	80.78%	40	15.69%	255
22. Railroad Trains	4	7.69%	23	44.23%	25	48.08%	52
23. Child Restraint Deficient*	4	0.84%	207	43.49%	265	55.67%	476
24. Roadway Defects – All	3	2.34%	28	21.88%	97	75.78%	128

25. School Bus Involved	2	0.31%	112	17.31%	533	82.38%	647
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* All categories list number of crashes except for the “Restraint Deficient” and “Child Restraint Deficient” categories. The restraint categories cannot accurately be measured by number of crashes so they list number of unrestrained persons for each severity classification.

Two entries in Table 1 are important with regard to the Occupant Protection Plan. The following defines these two entries:

- 47. Restraint-Deficient Crashes (RD) – any crash in which one or more of the occupants of any involved vehicle (including drivers) were not properly restrained; and
- 48. Child Restraint-Deficient Crashes (CRD) – any crash in which one or more children who are subject to child restraint laws were not properly restrained, independent of the restraint characteristics of the other occupants.

Clearly RD is at the top of this list, demonstrating that occupant restraint is one of the most critical issues in traffic safety and fatality reduction. It should be understood that the categories given in Table 1 are not mutually exclusive (e.g., you could have unrestrained passengers in an alcohol/drug crash that involved speeding, and many other combinations). However, they still tend to demonstrate the relative criticality of each of the particular categories. Because RD is of the highest level, the State puts considerable emphasis on occupant protection, and extensive analyses have been performed in an effort to determine the best approach to increasing restraint use.

Child Restraint Deficiencies (CRD) are near the bottom of Table 1 with only four fatalities. This reflects the extreme efforts that have gone into child protection by several agencies throughout the state. Special emphasis is given to children, reflecting the importance of maintaining all of the child restraint programs. The enforcement efforts for CRD effectively follows the same pattern as that for RD.

Table 1 shows clearly that one of the most effective ways of reducing fatalities is to increase restraint use. The next step in the problem identification process is to analyze the data for these crashes and determine all of the demographics related to them (e.g., the who, what, where, when, how old, and why of crashes involving non-restrained occupants). The goal is to (1) determine the most effective countermeasures that can be applied, and once these are defined, (2) identify the best tactics to be applied within each.

This starts by determining those types of crashes to be targeted for occupant protection countermeasure implementation. For example, a recent study determined a very strong correlation between RD and other risky driving characteristics. In particular, DUI (alcohol and other drugs) and speed were correlated with non-use, and younger drivers 16-25 were particularly vulnerable. Young drivers are susceptible to risk taking behaviors due to the fact

that the part of their brain that properly assesses risk is not fully developed until the average age of 25. While the average seatbelt use rate for all occupants has been measured above 90%, for those fatally injured, the use rate was 49.3% (2018 data).

Evidence-based enforcement (E-BE) has been determined to be one of the most effective methods for increasing restraint use in general. This requires specific locations be identified where there were concentrations of crashes involving unrestrained occupants. Once these hotspots are defined using the Critical Analysis Reporting Environment (CARE) software, the Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Coordinators across the state are given information on the hotspot locations for the state as a whole. They were also provided detailed hotspot reports specific to their region to assist them in focusing their area's efforts. Using the reports and maps developed for each region, the CTSP/LEL Coordinators develop plans, including the time schedule and work assignments, for their respective regions that focuses on the hotspot locations. The goals set on a regional basis are in line with the goals and strategies laid out in this plan.

Restraint Issues Problem Identification

This section contains the result of a problem identification study that was conducted based on data over calendar years 2014-2018. This was the latest data that were available at the time of the study, and it is quite representative of the restraint picture going forward into FY2020.

The goal of this problem identification is to assure that the restraint enforcement program considered by the state throughout FY2020 is completely evidence-based, the evidence being derived from past data obtained from crash records. For the more detailed study, please see:

http://www.safehomealabama.gov/wp-content/uploads/2018/12/AL_FY19_HSP_SHA-RstProbID_v04.pdf

For all of the results below, two subsets of data were established and compared: (1) where the causal driver was not properly restrained, and (2) where the causal driver was properly restrained. Concentration is on causal drivers since they would have the most influence on whether the occupants of their vehicles were restrained at the time of the crash. When a given attribute is stated to be over-represented, that means that in the comparison between the two subsets, this particular attribute had a statistically significant higher than expected proportion in the unrestrained as opposed to the restrained subset. When the term “expected proportion” is used, this is obtained from the proportion of the attribute that exists in the subset containing restrained causal drivers; and so the same would be expected of the unrestrained drivers if no difference existed.

The following summarizes the findings of the analysis:

Geographical Factors

1. Counties with the greatest overrepresentation factors for unrestrained drivers include Walker, Talladega, Jackson, DeKalb, Escambia and Cullman.
2. The number of crashes involving drivers who use no restraints is greatly over-represented in rural areas in comparison to the urban areas. The odds ratio for rural areas is about 2.4 times that of what would be expected if rural and urban restraint use were the same.
3. The most over-represented (worst) areas are the rural county areas in Walker, Mobile, Talladega, Tuscaloosa and Cullman Counties.
4. The most underrepresented (best) cities are Birmingham, Mobile, Montgomery, and Huntsville.
5. Crash incidents with no driver restraints being used are greatly over-represented on county highways, with 2.7 times the expected number of crashes. County and State were the only roadway classification that were over-represented. Federal, Interstate and Municipal roads were significantly under-represented.
6. In the analysis of locale, crashes involving no restraints are most commonly over-represented in Open Country areas (twice the expected), while Shopping or Business locale is the most significantly under-represented. Also favorable is School Locales have a proportion of non-use that is only about half in all other locales.

Time Factors

7. The weekend days are the most over-represented days of the week for crashes in which drivers did not use restraints, with proportions about 50% higher than expected. This correlates highly with impaired driving crashes.
8. In the evaluation of time of day, overrepresentations peak during the 7 PM to 6 AM time periods (averaging approximately three times their expected proportions), and then they taper off, falling back below crashes involving causal drivers who use restraints in the 7 AM to 7 PM time periods. This also correlates very highly with alcohol and drug use. Additional cross-tabulations performed for crashes involving injury showed fatal crashes being dramatically over-represented in the early morning hours (12 midnights to 7 AM).

Analysis of Time of Day by Day of Week.

9. Crosstab analyses of time of day by day of the week of crashes in which restraints were not used enables officers to determine target times and days to enforce restraint laws so that severe crashes may be prevented. The late night and early morning over-representations were largely on the weekend days starting on Friday night and ending on Sunday morning. As opposed to this, concentrations during the week were in the 6AM to 6PM mid-day times, which would be more typical of problem drinkers.
10. The cross-tabulation of time of day by day of the week that was restricted to each of the injury classifications showed a very high resemblance to the same analysis for impaired driving (alcohol and other drugs involvement), especially for fatal crashes. However, no severity dependent relationships were found, even in considering Property Damage Only crashes.

Crash Causal Factors

11. Primary Contributing Circumstance over-represented factors indicate that other risk-taking behaviors are quite often associated with crashes in which restraints are not used, including DUI (about 9 times its expected proportion), aggressive operation (over 8 times), over the speed limit (over 7 times), running off the road and fatigue/sleep (both close to three times their expected proportions).
12. Crashes attributed to drivers who used no restraints are greatly over-represented in vehicles with model years 1960-2004, which could be attributed to the lack of standard safety restraints in some of these older model vehicles, or perhaps the removal (or wearing-out) of these restraints over time. All vehicles newer than 2012 had about twice their restraint usage.
13. The speed at impact for crashes for restraint-deficient crashes is significantly over-represented (more than twice the expected value) in all of the categories above 45 MPH, indicating that these crashes consistently occur at higher speeds

than crashes in which restraints were used by the causal driver. This is highly correlated with rural driving and other risk taking behaviors.

Severity Factors

14. Fatal, incapacitating, and non-incapacitating injuries are all over-represented in crashes where drivers were not restrained; this analysis quantified the benefits of the restraint use. The probability of a fatality was found to be 30 times higher when not restrained.
15. Fatal injuries in crashes where no restraints are used are highly over-represented on interstate, federal and state roadways. "Possible Injuries and Property Damage Only were highly over-represented on municipal highways. See speed of impact above (probability of fatality in any given crash doubles with each speed increase of 10 MPH).
16. Analysis of number injured shows that the proportion of injuries (including fatalities) in unrestrained driver crashes is over-represented from 1 to 6 injuries per crash. Crashes without restraints are clearly causing much more severe injuries and a greater number of injuries and fatalities per crash.
17. Both the proportion of fatalities in general and the proportion of multiple fatality crashes (all cases, which included up to five fatalities) are dramatically over-represented in crashes where the causal driver is unrestrained.
18. As expected, ejection of the unrestrained driver is highly over-represented (338 times the expected number), indicating one major cause for many fatalities in which safety equipment is not properly utilized. There were 1752 crashes in which total ejections occurred for the unrestrained subset over the five years, of which 501 resulted in fatalities; this is a proportion of one in every 3.5 crashes. The non-ejected crash probability of fatality is about one in every 376 crashes.
19. All types of injuries, and especially fatalities, are consistently over-represented in crashes where no restraints were used.

Driver Demographics

20. Analysis of individual driver ages indicates that crashes involving no restraints are significantly over-represented in drivers above the teen driver classification (age range 21-36). Above this age range non-use is about as expected until age 54 and above, where restraint use becomes significantly over-represented. Older drivers are more risk averse, and are thus more apt to buckle-up.
21. Male drivers account for a majority of crashes in which restraints are not used, and they are significantly over-represented by a factor of 1.265 greater proportion than expected from the restrained subset.

22. With Child Restraint Deficiency crashes, the age range of the over-represented drivers were predominantly older drivers, especially 51-55, and 61 and older. See other child restraint results below.

Ejection and Back Seat Analysis

23. The non-restrained person is over 338 times more likely to be totally ejected than those who are properly restrained.
24. And if ejected, the probability of death increases by another 300 times. If you do survive, ejections that are not fatal usually result in extremely severe injury.
25. If all back-seat occupants were properly restrained it would result in an estimated saving of 62 lives per year.

The results given below for child restraints were obtained by a comparison of occupants aged 8 and under who were (1) properly restrained in approved child safety restraints against (2) those either not restrained or restrained improperly.

Child Restraint Deficiency

26. Children not restrained have a proportion of fatal injury that is 42 times the proportion of those properly restrained. The other three injury classifications, while not increased as much, are greater by factors of 7.3, 4.2 and 2.4, for Incapacitating Injury, Non-Incapacitating Injury and Non Visible but Complains of Pain, respectively.
27. The following areas (virtual cities) are the worst in the state for child restraints as given by the odds ratios (greater than 2.00) that show significant over-representations (in order of odds ratio): Rural Mobile, Rural Monroe, Rural Autauga, Rural Chilton, Rural Talladega, Montgomery, Rural Walker, Haleyville, Rural Lowndes, Prichard, Rural Macon, Troy, Rural Dallas, Rural Escambia, Rural Marshall, Rural Geneva, Rural Dale, and Rural Lawrence.
28. Over-represented crash types in which these children were involved with odds ratios greater than 2 (number over the five years, odds ratio): Single Vehicle Crashes (696, 2.121) and Sideswipe (157, 2.618).
29. Primary Contributing Circumstances with odds ratios greater than three: DUI, Aggressive Operation, and Over Speed Limit. These were for the crashes and not necessarily the vehicles in which the children were occupants, but would be for all single vehicle crashes.
30. Both morning and afternoon rush hours were over-represented, but afternoon was about twice as bad (711 crashes) as morning (333 crashes).
31. County roads were significantly over-represented with an odds ratio of 1.364. State roads were the only other ones that were over-represented, but their odds ratio was only 1.080. All other roadway types were under-represented.
32. Of those not properly restrained, 43 were thrown from the vehicle, of which 15 were killed. This one-in-three probability can be compared to all crashes in which

children were involved and properly restrained, which was only 13 in 51,052, which is one in 3,927 persons aged 8 and under involved.

33. With Child Restraint Deficiency crashes, the age range of the over-represented drivers were predominantly older drivers, especially 51-55, and 61 and older. See other child restraint results below.

Proposed Legislation

There are many opportunities to strengthen the current restraint laws in Alabama. Despite the revisions to the Primary Seat Belt Law in 1999, the law still fails to address the use of restraints for any adult passengers in the back seat. Alabama law addresses this requirement in child restraint laws, but there is no requirement for adults.

A number of proposed safety legislation bills were endorsed by the State's Strategic Highway Safety Plan Committee (SHSP, Page 41). The SHSP proposes a "primary seat belt law for all passengers" that would address this issue for adult passengers in the back seat. Furthermore, the SHSP goes on to address the issue of passengers in the rear of pickups. This provision would require that passengers would only be allowed to ride in areas equipped with safety belts.

The State's child restraint law is rather comprehensive; however, legislation has been proposed to adjust the booster seat requirement for children so as to require each occupant who is eight years of age and under, weighs less than 80 pounds and is less than four feet, nine inches in height to be secured in an age-appropriate child restraint. This measure would address discrepancies concerning the proper age and weight for eliminating the use of a booster seat. Furthermore, the State's SHSP intends to address the Child Restraint Law to ensure that there are no gaps in restraint laws to ensure that all occupants of a motor vehicle under the age of sixteen are covered by specific laws. These suggested provisions do not include a provision regarding an age requirement for riding as a passenger in the front seat. Many states include such stipulations that make this a primary offense if a child under the age requirement is sitting in the front seat, with or without safety restraints. Still to be proposed is the law that all occupants riding in passenger motor vehicles must be secured in a seat belt or appropriate child restraint so that there will be no gaps in coverage in the State occupant protection laws.

At the time of this HSP submission, a new bill from the 2019 legislative session was sent to Governor Kay Ivey's office for consideration. The summary for SB254 is included below.

SB254 ENROLLED, An Act,

To amend Section 32-5B-4 of the Code of Alabama 1975, to further require each occupant of passenger cars manufactured with safety belts to have a safety belt fastened when the vehicle is in motion; and in connection therewith would have as its purpose or effect the requirement of a new or increased expenditure of local funds within the meaning of Amendment 621 of the Constitution of Alabama of 1901, now appearing as Section 111.05 of the Official Recompilation of the Constitution of Alabama of 1901, as amended.

In summary, proposed legislation has included the following items:

49. People sitting in all seat positions wear seat belts.
50. Raise minimum fine to \$100 on occupants of 19 years of age or older.
51. Adjust the booster seat requirement for children so as to require each occupant who is eight years of age and under, weighs less than 80 pounds and is less than four feet, nine inches in height to be secured in an age-appropriate child restraint.
52. Provide incentives for motor vehicle insurance companies to offer economic incentives for policy holders who agree to use appropriate restraints; with the stipulation that there will be penalties to them if they are in a crash and injured without being restrained.

53. Provide stiff penalties as part of the State GDL (perhaps up to the short suspension of license) for any driver who is caught without everyone in the vehicle being restrained. The only exception might be if there were never restraints installed. While the current law addresses the maximum number of occupants and restricted driving schedule, it does not specify seat belt use for drivers or passengers. For example, the GDL law in Delaware includes a seat belt provision that requires teen drivers and passengers under age 18 to wear a seat belt at all times. If this provision is violated, the teen driver faces suspension of a license or permit for two months.
54. Provide some legal basis for making the degree of injury sustained not covered by insurance when there is contributory negligence on the part of passengers who fail to be properly restrained.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-1) Number of traffic fatalities (FARS)	2020	5 Year	964
2020	C-2) Number of serious injuries in traffic crashes (State crash data files)	2020	5 Year	8,143
2020	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	2020	5 Year	374
2020	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	2020	5 Year	91

Countermeasure Strategies in Program Area

Countermeasure Strategy
Child Restraint System Inspection Station(s)
Short-term, High Visibility Seat Belt Law Enforcement

Countermeasure Strategy: Child Restraint System Inspection Station(s)

Program Area: **Occupant Protection (Adult and Child Passenger Safety)**

Project Safety Impacts

Child Restraint Deficiencies (CRD) are near the bottom of an analysis of top fatality causes in Alabama. This reflects the extreme efforts that have gone into child protection by several agencies throughout the state. Special emphasis is given to children, who are quite vulnerable if not properly restrained, and the importance of maintaining all child restraint programs is clear. One of the most effective ways of reducing fatalities is to increase restraint use, and this example will be used to further illustrate the problem identification process that is applied to all potential countermeasures. Inspection events can positively change parents' and caregivers' attitude towards installing child restraints correctly by improving their knowledge.

AOHS will fund the state's Child's Passenger Safety program, which will facilitate and maintain a network of fitting stations and events to cover a majority of the state. The program will also organize training and recertification classes for technicians.

A general outline of this program follows:

55. Recruit a sufficient amount of potential technicians throughout the state in order to address areas identified as needed fitting stations or knowledgeable staff available for assistance;
56. Training of “first time” technicians;
57. Recertification of previously trained technicians;
58. Inspection stations will continue to be made available to the public;
59. Technicians ensuring that child passenger restraints are installed correctly and that caregivers know how to install them correctly;
60. Outreach to underserved communities providing technicians for additional trained CPS professionals in all communities.

The goal for the CPS program is to develop trained CPS professionals in as many communities over the state as possible. The ultimate vision is to create statewide community inspection stations where parents and other caregivers can obtain proper education about restraining their children for safety, while at the same time providing a supporting public information and education program that informs and motivates the public in proper child restraint use.

Table 4 below shows the location of the anticipated classes for FY 2020 as well as an estimation of the number of attendees.

Table 4. Class Location and Attendee Estimate

Class Location	Estimated Number of Students
Northern District	20
Jefferson CO. District	20

Inspection Stations

ADPH plans to maintain current inspection stations, as well as establish at least one sanctioned station in every public health district. All these inspections stations will be staffed with nationally certified CPS technicians during posted working hours. Some of the inspection stations will work on an appointment only basis.

Table 5 illustrates the proportion of Alabama's population that is covered by inspection stations. The table demonstrates that 63.3% of the population of Alabama is covered.

The list below identifies the location of inspection stations and/or inspection events as well as the populations they serve. The table also affirms that each station and/or event will be staffed by a certified technician.

Table 5. Proportion of Alabama's Population Covered by Inspection Stations

Location	Population served	% of total population
Fort Rucker	26,289	.6%
Alabaster	43,974	.9%
Jefferson County	659,197	13.8%
Mobile County	413,955	8.7%
Tuscaloosa County	207,811	4.3%
Enterprise	49,948	1.0%
Montgomery County	226,646	4.7%
Houston County	104,346	2.2%
Troy	18,033	.4%
Madison County	361,046	7.6%
Athens	82,782	1.7%
Selma	43,820	.9%
Eufaula	52,947	1.1%
Daleville	26,790	.6%
Demopolis	10,591	.2%
Auburn	140,247	2.9%
Gadsden	104,430	2.2%

Enterprise Police & Fire Departments	Rural	Low Income	YES
Eufaula Police & Fire Department	Rural	Low Income	YES
Florence Police & Fire Department	Urban		YES
Foley Police Department	Urban		YES
Ft. Mitchell	Rural		YES
Ft. Rucker Fire & Police Department	Rural	Low Income	YES
Gadsden Fire Department	Urban		YES
Gadsden Regional Medical Center	Urban		YES
Hartselle	Urban	Low Income	YES
Hueytown Police Department	Rural	Low Income	YES
Huntsville Hospital, Huntsville Police Department & Huntsville Pediatrics	Urban		YES
Jacksonville Fire Department	Urban		YES
Jasper Alabama	Urban		YES
Madison County Sheriff's Office	Urban		YES
Millbrook Alabama	Urban		YES
Montgomery SAFE Kids & Baptist East	Urban		YES
Mountainbrook Fire Department	Urban		YES
Northport Fire & Police	Urban		YES
North Shelby Fire Department	Urban		YES
Ozark Police Department	Rural	Low Income	YES
Saraland Police Department	Urban		YES
Selma Fire Department	Urban	Low Income, Minority	YES
Sylacauga Fire Department	Rural	Low Income	YES
Troy Fire & Police Department	Urban		YES
Trussville Fire Department	Urban		YES

Tuscaloosa Police Department	Urban	YES
Tuscaloosa SAFE Kids	Urban	YES
USA Women's and Children's Hospital Mobile	Urban	YES

Linkage Between Program Area

As part of the Alabama Office of Highway Safety (AOHS) traffic safety planning effort, special problem identification studies are performed for the various program areas chosen. When any new issues arise, or for all countermeasures for which discretionary funds are expended, special analytical procedures are employed. The process is as follows:

61. Analyze results of problem identification to set performance measure targets for the program year
62. Evaluate the potential overall countermeasure strategies at a very high level in the light of evidence-based information that is generated primarily from crash records with some supplements provided by citation records.
63. Select the overall programs that will be implemented from a strategic point of view.
64. Use further analytics to fine-tune the particular countermeasures that will be implemented, e.g., the specific locations for selective enforcement and determine allocation of funds.

This analytical review includes all of the countermeasures that are presented in this plan as well as the particular tactics to be applied in their implementations

After reviewing performance goals, the AOHS then examines and selects countermeasures to help achieve the state's targets. The following outlines the strategies of countermeasures to be applied during each fiscal year:

65. Planning and Administration – The Alabama Office of Highway Safety (AOHS) will continue to perform the overall administrative functions for the planned programs and projects.
66. Community Traffic Safety Programs/Law Enforcement Liaison (CTSP/LEL) – will provide coordination for the local implementations of the statewide occupant protection program, and the CTSP/LEL Coordinators and the administrative support for their offices will be maintained.
67. The University of Alabama Center for Advanced Public Safety (UA-CAPS) will provide the information required for allocating traffic safety resources in an optimal way, and they will continue to be supported in providing AOHS with Alabama crash and traffic safety data throughout the year.

68. Conduct four local Hotspot Evidence-Based Enforcement Program (E-BEP) projects, one within each of the CTSP/LEL regions focusing on hotspot locations.
69. Perform a statewide E-BE project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA), also focusing on hotspot locations.
70. Continue the Law Enforcement Liaison (LEL) programs statewide. Beginning in FY 2007, this program was absorbed by the regional CTSP/LEL offices and was funded through the Community Traffic Safety Projects. This funding arrangement will continue in FY 2019.
71. Participate in national and regional High Visibility Enforcement campaign on the statewide level, paired with a corresponding mass media campaign.
72. Continue the Child Passenger Safety Program to maintain the network of restraint inspection stations in Alabama, as well as certify technicians.

Funding allocation is determined by evaluating the threshold of resources that are required to carry out each planned activity for the duration of the project in a calculated and realistic manner.

Rationale

According to *NHTSA Countermeasures that Work* (Page 2-1), NHTSA estimates that correctly used child restraints are even more effective than seat belts in reducing fatalities. Child restraints reduce fatalities by 71% for infants younger than 1 year old and by 54% for children 1 to 4 years old in passenger cars. In light trucks, the fatality reductions are 58% for infants and 59% for children 1 to 4 years old. In addition, research conducted by the Partners for Child Passenger Safety Program at the Children’s Hospital of Philadelphia found that belt-positioning booster seats reduce the risk of injury to children 4 to 8 in crashes by 45% when compared to the effectiveness of seat belts alone. The proper use of child restraints is not trivial, and most parents are not intuitively aware of all of the complexities involved. Improper application of even the correct devices can lead to increased injury or even death. It is quite clear that this training project is a key component of the overall child restraint effort.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
M1PE-20-M1	Child Passenger Safety Training Program

Planned Activity: Child Passenger Safety Training Program

Planned activity number: **M1PE-20-M1**

Primary Countermeasure Strategy ID: **Child Restraint System Inspection Station(s)**

Planned Activity Description

AOHS will continue to partner with the Alabama Department of Public Health (ADPH) to implement the state's Child Passenger Safety (CPS) Program. The CPS program will be staffed with a Program Coordinator and a Health Educator located at the ADPH central office, and six district coordinators: ADPH employees are located in six of public health districts (Northern, Northeastern, West Central, East Central, Southeastern, Southwestern). The program will have the goal of successfully recruiting, training and maintaining a sufficient number of child passenger safety technicians based on the Alabama's problem identification.

To recruit a network of technicians and instructors, information about upcoming CPS technician certification classes, as well as information about car seat fitting stations and car seat check events will be added to the CPS website section at <http://www.alabamapublichealth.gov/injuryprevention/car-seats.html>. The site will include downloadable educational materials and information regarding car seat installation tips, Alabama car seat laws and general car seat safety information. These materials will be publicized to parents statewide through a variety of avenues, including a series of brochures and pamphlets, along with social media, and other youth- focused ADPH programs. The sites for classes to be held will be chosen from locations in the districts that is centrally located in either high-demand areas or those that have been identified as underserved.

The Program Coordinator will be responsible for the overall project, including: Organizing CPS certification and recertification trainings, developing program materials, coordinating efforts with other agencies and the public health districts, and maintaining the CPS website. The Program Coordinator will become a certified Car Seat Technician, and work to become a Lead Instructor during the first year of the program. The Health Educator is currently a certified car seat technician who will help implement the program during the first year, also working to become a Lead Instructor. Each district coordinators will spend ten percent of their time devoted to coordinating trainings and seat checks in their districts. They will be responsible for assisting the Program Coordinator with scheduling Child Passenger Safety Trainings in their districts, securing a location for the training, and assisting the instructors with the training. They will also be responsible for organizing and conducting car seat clinics and seat check events in their district for the public.

Staff who are not already certified CPS Technicians will attend a CPS training to become certified technicians first before they are eligible to participate in CPS seat check events. Until ADPH staff members are certified as instructors, ADPH will contract with current CPS Instructors and Lead Instructors listed on the Safe Kids website to conduct trainings in the state to certify ADPH staff, as well as any members of the public who are interested in becoming technicians. The Program Coordinator will be responsible for coordinating with current CPS Instructors and Lead Instructors to schedule trainings.

In order to become CPS Instructors, CPS Technicians must participate in CPS Trainings as Course Assistants with CPS Mentors (current instructors), and participate in CPS events for at least six months. At the end of the six-month period, potential instructors submit an Instructor Candidacy application. Upon approval from Safe Kids, the CPS Technician officially becomes

an Instructor Candidate. The Instructor Candidates will then work with their CPS Mentor to schedule a training that they will instruct along with their mentor. CPS Instructors who wish to become Lead Instructors can elect to take the Lead Instructor Quiz once they feel comfortable with their technical and teaching skills. The goal is that by the end of Year 2, the ADPH CPS Program will consist of at least two lead instructors and at least six certified instructors who will be able to conduct trainings across the state in Year 3.

To obtain training and mentors for ADPH program staff, the Program Coordinator will contact Lead Instructors listed on the Safe Kids website to schedule trainings and recruit current Lead Instructors to become mentors for ADPH staff. Once CPS mentors have been identified, the Program Coordinator will work with the CPS Lead Instructors and each District Coordinator to schedule CPS Trainings in three of the ADPH public health districts. If there is interest and staff is available, additional trainings will be conducted. Each training will consist of a 3-day CPS technician certification class and a 1-day CPS recertification class for any interested participants. Information about upcoming trainings will be posted on the ADPH Child Passenger Safety website.

The Program Coordinator will also ensure that the Safe Kids online listing of technicians is up-to-date, and work directly with Safe Kids to correct any issues. This will be accomplished by contacting each CPS Technician listed on the Safe Kids website, and verifying their status as a certified technician, and inquiring about the use of their certification. The Program Coordinator will create a database with an updated list of CPS Technicians, and indicate technicians that are willing to participate in CPS Seat Check Events around the state. Any discrepancies with the CPS Technician List on the Safe Kids website will be resolved with the help of Safe Kids staff.

The Program Coordinator will work with the District Coordinators and the Program Consultant to identify additional permanent fitting stations across the state with at least one ADPH-sanctioned fitting station in each public health district. The current list of statewide fitting stations on the Safe Kids website will be vetted to ensure that each station does in fact have a certified CPS Technician who can conduct car seat checks and install car seats. The Program Coordinator will also inquire about fitting stations when contacting technicians about their certification status, and connect technicians who are interested in participating in seat check events with fitting stations in their area.

Information about upcoming CPS Technician trainings and recertification, as well as information about car seat fitting stations and seat check events will be added to the ADPH CPS website. The revamped site will also include educational materials information that will be available for download that covers car seat installation tips, Alabama laws regarding car seats, and general seat belt safety information. Brochures and flyers will be created in-house by the Program Coordinator and the ADPH Health Marketing Division. The ADPH CPS website will be maintained by the Program Coordinator and Health Educator.

Table 4 below shows the location of the anticipated three-day classes for FY 2020 as well as an estimation of the number of attendees.

Table 4. Class Location and Attendee Estimate

Class Location	Estimated Number of Students
Northern District	20
Jefferson Co. District	20
Southeastern District	20

Inspection Stations

ADPH plans to maintain current inspection stations, as well as establish at least one sanctioned station in every public health district. All these inspections stations will be staffed with nationally certified CPS technicians during posted working hours. Some of the inspection stations will work on an appointment only basis.

Table 5 illustrates the proportion of Alabama’s population that is covered by inspection stations. The table demonstrates that 63.3% of the population of Alabama is covered.

The list below identifies the location of inspection stations and/or inspection events as well as the populations they serve. The table also affirms that each station and/or event will be staffed by a certified technician.

Table 5. Proportion of Alabama’s Population Covered by Inspection Stations

Location	Population served	% of total population
Fort Rucker	26,289	.6%
Alabaster	43,974	.9%
Jefferson County	659,197	13.8%
Mobile County	413,955	8.7%
Tuscaloosa County	207,811	4.3%
Enterprise	49,948	1.0%
Montgomery County	226,646	4.7%
Houston County	104,346	2.2%
Troy	18,033	.4%
Madison County	361,046	7.6%
Athens	82,782	1.7%
Selma	43,820	.9%

Eufaula	52,947	1.1%
Daleville	26,790	.6%
Demopolis	10,591	.2%
Auburn	140,247	2.9%
Gadsden	104,430	2.2%
Grove Hill	24,805	.5%
Albertville	93,019	1.9%
Sylacauga	93,830	2.0%
Lauderdale County	92,538	1.9%
Cullman	80,406	1.7%
Jasper	67,023	1.4%
All the sites	3,024,473	63.3%

*2010 Census Data, Alabama's total population in the 2010 Federal Census was 4,779,736.

Table 6. Station and/or Events and Population Served

Station/Events	Rural	Urban	At-Risk	Certified Tech Present
Alabaster Fire Department		Urban		YES
Albertville Police Department		Urban		YES
Athens Police Department		Urban		YES
Andalusia Alabama	Rural			YES
Auburn Police Department		Urban		YES
Bessemer Police Department		Urban	Low income, Minority	YES
Calhoun County Sheriff's Office	Rural			YES
Children's Hospital Birmingham		Urban		YES

Clarke County Health Department	Rural		Low Income, Minority	YES
Cullman County		Urban		YES
Daleville Police Department	Rural		Low Income	YES
Demopolis Police Department	Rural		Low Income, Minority	YES
Dothan Police & Fire Department		Urban		YES
Elba Police Department	Rural			YES
Enterprise Police & Fire Departments	Rural		Low Income	YES
Eufaula Police & Fire Department	Rural		Low Income	YES
Florence Police & Fire Department		Urban		YES
Foley Police Department		Urban		YES
Ft. Mitchell	Rural			YES
Ft. Rucker Fire & Police Department	Rural		Low Income	YES
Gadsden Fire Department		Urban		YES
Gadsden Regional Medical Center		Urban		YES
Hartselle		Urban	Low Income	YES
Hueytown Police Department	Rural		Low Income	YES
Huntsville Hospital, Huntsville Police Department & Huntsville Pediatrics		Urban		YES
Jacksonville Fire Department		Urban		YES

Jasper Alabama		Urban		YES
Madison County Sheriff's Office		Urban		YES
Millbrook Alabama		Urban		YES
Montgomery SAFE Kids & Baptist East		Urban		YES
Mountainbrook Fire Department		Urban		YES
Northport Fire & Police		Urban		YES
North Shelby Fire Department		Urban		YES
Ozark Police Department	Rural		Low Income	YES
Saraland Police Department		Urban		YES
Selma Fire Department		Urban	Low Income, Minority	YES
Sylacauga Fire Department	Rural		Low Income	YES
Troy Fire & Police Department		Urban		YES
Trussville Fire Department		Urban		YES
Tuscaloosa Police Department		Urban		YES
Tuscaloosa SAFE Kids		Urban		YES
USA Women's and Children's Hospital Mobile		Urban		YES

Intended Subrecipients

Alabama Department of Public Health

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Child Restraint System Inspection Station(s)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405b OP High	405b High Public Education (FAST)	\$200,000.00	\$50,000.00	

Countermeasure Strategy: Short-term, High Visibility Seat Belt Law Enforcement

Program Area: **Occupant Protection (Adult and Child Passenger Safety)**

Project Safety Impacts

The value of Short-term, High Visibility Seat Belt Enforcement, such as Click it or Ticket (CIOT) projects is well documented (see *NHTSA Countermeasures that Work* Page 2-13) High-visibility, short-duration seat belt law enforcement programs were demonstrated in individual communities in the late 1980s. North Carolina's CIOT program took this model statewide beginning in 1993 and raised the use rate above 80%. The CIOT model expanded nationwide in 2003 and seat belt use increased nationwide in almost all states from 2000-2006, in part due to CIOT seat belt enforcement programs. The national seat belt use rate reached 90.1% in 2016. For example, Hedlund et al. (2008) compared 16 States with high seat belt rates and 15 States with low seat belt rates. The single most important difference between the two groups was the level of enforcement, rather than demographic characteristics or the amount spent on media. High-belt-use States issued twice as many citations per capita during their Click It or Ticket campaigns as low-belt-use States. Similarly, Hinch et al. (2014) found that law enforcement in primary belt use law States issued more seat belt citations in the 2012 campaign than did law enforcement in secondary belt use law States.

It is projected Short-Term, High Visibility Seat Belt Enforcement projects in each of the CTSP/LEL and State Trooper Regions conducted during the national "Click It or Ticket" campaign, along with a multi-platform paid media campaign, will achieve the following :

73. Reduce of the number and severity of the hotspots found over time.
74. Increase of the number of citations by citation type issued over time.
75. Increase the seat belt usage rate among the various regions.

Linkage Between Program Area

As part of the Alabama Office of Highway Safety (AOHS) traffic safety planning effort, special problem identification studies are performed for the various program areas chosen. When any new issues arise, or for all countermeasures for which discretionary funds are expended, special analytical procedures are employed. The process is as follows:

76. Analyze results of problem identification to set performance measure targets for the program year

77. Evaluate the potential overall countermeasure strategies at a very high level in the light of evidence-based information that is generated primarily from crash records with some supplements provided by citation records.
78. Select the overall programs that will be implemented from a strategic point of view.
79. Use further analytics to fine-tune the particular countermeasures that will be implemented, e.g., the specific locations for selective enforcement and determine allocation of funds.

This analytical review includes all of the countermeasures that are presented in this plan as well as the particular tactics to be applied in their implementations

After reviewing performance goals, the AOHS then examines and selects countermeasures to help achieve the state's targets. The following outlines the strategies of countermeasures to be applied during FY 2020:

80. Planning and Administration – The Alabama Office of Highway Safety (AOHS) will continue to perform the overall administrative functions for the planned programs and projects.
81. Community Traffic Safety Programs/Law Enforcement Liaison (CTSP/LEL) – will provide coordination for the local implementations of the statewide occupant protection program, and the CTSP/LEL Coordinators and the administrative support for their offices will be maintained.
82. The University of Alabama Center for Advanced Public Safety (UA-CAPS) will provide the information required for allocating traffic safety resources in an optimal way, and they will continue to be supported in providing AOHS with Alabama crash and traffic safety data throughout the year.
83. Conduct four local Hotspot Evidence-Based Enforcement Program (E-BEP) projects, one within each of the CTSP/LEL regions focusing on hotspot locations.
84. Perform a statewide E-BE project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA), also focusing on hotspot locations.
85. Continue the Law Enforcement Liaison (LEL) programs statewide. Beginning in FY 2007, this program was absorbed by the regional CTSP/LEL offices and was funded through the Community Traffic Safety Projects. This funding arrangement will continue in FY 2020.
86. Participate in national and regional High Visibility Enforcement campaign on the statewide level, paired with a corresponding mass media campaign.
87. Continue the Child Passenger Safety Program to maintain the network of restraint inspection stations in Alabama, as well as certify technicians.

Funding allocation is determined by evaluating the threshold of resources that are required to carry out each planned activity for the duration of the project in a calculated and realistic manner.

Rationale

Alabama continues to steadily improve its seat belt and child restraint use rates that experienced a major improvement upon passing its Primary Seat belt Law in 1999. As part of the cooperative process with NHTSA, an Evidence-Based Enforcement Program (E-BEP) called “Click It or Ticket” (CIOT) is run on an annual basis in April, May and June of each year. Alabama's program will consist of a coordinated effort among law enforcement agencies from the municipal to the state level.

Data availability and its analysis is also essential to the effective management of the overall restraint program and its improvement. Data collected is used for problem identification and evaluation that is organized according to the following categories:

- 88. Observational survey of occupant protection and child restraint use. Pre and post surveys for seat belt programs will be conducted using the NHTSA-compliant seat belt survey design. A telephone survey will be used to evaluate the effectiveness of the paid media related to the CIOT campaign.
- 89. Occupant protection and child restraint crash analysis. These are performed to assure that the locations and other demographics are the most advantageous by the problem identification efforts.
- 90. Continued problem identification and evaluation. The efforts exemplified in the Problem Identification will be repeated, extended and updated as needed to assure the most effective distribution of resources that can be obtained from evidence-based decisions. In addition, several evaluation studies are described to determine program success and to improve the program in future years.

Specific countermeasures within each of these data categories were checked for their effectiveness estimates from the NHTSA-recommended document: *Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices, Ninth Edition, 2017.*

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
M1HVE-20-OP-M1	Click It or Ticket High Visibility Enforcement Campaign
M1OP-20-OP-M1	Click It or Ticket Observational Survey
M1PEM-20-OP-M1	Click It or Ticket Paid Media Campaign

Planned Activity: Click It or Ticket High Visibility Enforcement Campaign

Planned activity number: **M1HVE-20-OP-M1**

Primary Countermeasure Strategy ID: **Short-term, High Visibility Seat Belt Law Enforcement**

Planned Activity Description

The Alabama Highway Safety Office will conduct a High Visibility Enforcement program for a two week period. The enforcement program will consist of members from the Municipal Law Enforcement Agencies, County Sheriffs and Alabama Law Enforcement Agency

Intended Subrecipients

Regional CTSP/LEL offices

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Short-term, High Visibility Seat Belt Law Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act NHTSA 402	Occupant Protection (FAST)	\$200,000.00	\$50,000.00	\$200,000.00

Planned Activity: Click It or Ticket Observational Survey

Planned activity number: **M1OP-20-OP-M1**

Primary Countermeasure Strategy ID: **Short-term, High Visibility Seat Belt Law Enforcement**

Planned Activity Description

Pre- and post- program surveys will be conducted by the University of Alabama Center for Advanced Public Safety (UA-CAPS) as part of the “Click It or Ticket” campaign and extending to all of the various restraint projects, including the determination of child restraint usage rates. The total restraint use program will consist of waves of surveys, enforcement and media blitzes, carefully scheduled to maximize public understanding of restraint use.

Intended Subrecipients

University of Alabama

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Short-term, High Visibility Seat Belt Law Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405b OP High	405b High OP Information System (FAST)	\$200,000.00	\$50,000.00	

Planned Activity: Click It or Ticket Paid Media Campaign

Planned activity number: **M1PEM-20-OP-M1**

Primary Countermeasure Strategy ID: **Short-term, High Visibility Seat Belt Law Enforcement**

Planned Activity Description

As a part of the nationwide initiative to increase seat belt usage, Alabama will participate in the “Click It or Ticket” High Visibility Paid Media campaign. This campaign will be scheduled in May and conclude on the Memorial Day Holiday. This has been a highly successful program in the past several years. Alabama will continue to lend its full support to the program in the coming year.

The value of Click it or Ticket (CIOT) projects is well documented (see *NHTSA Countermeasures that Work* Page 2-4). High-visibility, short-duration belt law enforcement programs were demonstrated in individual communities in the late 1980s. North Carolina’s CIOT program took this model statewide beginning in 1993 and raised the seat belt use rate above 80%. The CIOT model expanded nationwide in 2003 and seat belt use increased nationwide in almost all states from 2000-2006, in part due to CIOT seat belt enforcement programs.

Intended Subrecipients

Auburn University

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Short-term, High Visibility Seat Belt Law Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405b OP High	405b High Paid Advertising (FAST)	\$340,000.00	\$85,000.00	

Program Area: Planning & Administration

Description of Highway Safety Problems

1. Summary of Crash Severity by Crash Type (Table 1, 1.1)

Beginning in 2010 it was determined that a tool should be established to enable decision-makers to view the state's traffic safety issues at the highest possible level. This tool was named "Table 1" and it appears below. It was reasoned that, all other things being equal, traffic safety resource allocations should go to address those issues that cause the greatest number of fatalities. While this is a good default position to start from, all other things are rarely equal, and optimal resource allocations must also take into account the cost of the countermeasures being considered and the proportion of the crashes that can reasonably be reduced by any given countermeasure. Thus, an item with a lower number of fatalities could become optimal to address if a lower cost countermeasure would reduce a larger number of its crashes.

The eCrash system that went into effect July 1, 2009 creates data that meets most of the Model Minimum Uniform Crash Criteria (MMUCC). It provides data that are much timelier, since in many cases these reports are available the same day as the crash. Careful work was done to ensure that no variables or codes that could indicate a particular crash category of Table 1 were missed, and that the search criteria captured all of the crashes for each of the particular categories for this evidence-based analysis.

There are no limitations on the various subjects that may be added for consideration in Table 1, and all SHSP participants are encouraged to add any categories that they feel are appropriate. Distracted Driving (DD) was the most recently added for the FY 2018 HSP. The category with the highest number of fatal crashes is listed at the top of Table 1, descending to the crash type category with the lowest number of fatal crashes listed last. The number and percent of crashes by severity are listed for each category (see footnote for the exception of "restraint deficient"). This enables an easy comparison between the various crash types. It is important to realize that the categories of Table 1 are not mutually exclusive. However, since this is true in all of the categories, these numbers serve to give the relative criticality of the particular categories that most often are the targets for funding or other resource allocations.

Table 1: Top Fatality Causes Alabama CY 2018 Data

Crash Type (Causal Driver)	Fatal Number	Fatal %	Injuries	Injury %	PDO No.	PDO %	Total
Seat Belt Restraint Fault*	372	3.67%	4,073	40.14%	5,703	56.20%	10,148
Speed Involved	199	1.94%	3,259	31.85%	6,774	66.20%	10,232
ID/DUI All Substances	169	3.05%	2,135	38.59%	3,228	58.35%	5,532
Hit Obstacle on Roadside	124	1.87%	2,126	32.14%	4,365	65.99%	6,615
Ped., Bicycle, School Bus	117	7.04%	939	56.53%	605	36.42%	1,661
Fail to Yield or Ran (All)	114	0.37%	7,676	24.92%	23,010	74.71%	30,800
Mature (65 or Older) Causal	112	0.75%	3,249	21.76%	11,567	77.49%	14,928
Pedestrian Involved	106	13.97%	621	81.82%	32	4.22%	759
License Deficiency Causal	103	1.59%	2,018	31.22%	4,342	67.18%	6,463

Wrong Way Items	99	2.10%	1042	22.06%	3,582	75.84%	4,723
Youth (16-20) Causal Driver	86	0.37%	5,110	21.91%	18,129	77.72%	23,325
Motorcycle Involved	76	4.93%	1,065	69.02%	402	26.05%	1,543
Aggressive Operation	70	2.44%	856	29.89%	1,938	67.67%	2,864
Distracted Driving	43	0.29%	3208	21.93%	11,380	77.78%	14,631
Drowsy Driving	38	1.05%	1383	38.04%	2,215	60.92%	3,636
Large Truck Involved	36	0.52%	1,432	20.49%	5521	79.00%	6,989
Utility Pole	29	1.15%	877	34.90%	1,607	63.95%	2,513
Work Zone Related	27	0.72%	770	20.50%	2,959	78.78%	3,756
Vehicle Defects – All	12	0.36%	690	20.70%	2,631	78.94%	3,333
Vision Obscured	10	0.84%	320	26.87%	861	72.29%	1,191
Bicycle	9	3.53%	206	80.78%	40	15.69%	255
Railroad Trains	4	7.69%	23	44.23%	25	48.08%	52

Child Restraint Fault*	4	0.84%	207	43.49%	265	55.67%	476
Roadway Defects – All	3	2.34%	28	21.88%	97	75.78%	128
School Bus Involved	2	0.31%	112	17.31%	533	82.38%	647

* All categories list number of crashes except for the “Seat Belt Restraint Fault” and “Child Restraint Fault” categories. The restraint categories cannot accurately be measured by number of crashes so they list number of unrestrained persons for each severity classification.

The comparison of gross fatality and injury counts is merely a first step in the analytical process to find optimal allocations of resources among programs. Obtaining this first-cut perspective is essential for intelligent decision-making. Once the high-level decisions are made regarding which of the crash types will be addressed, further analyses must be performed to define countermeasures and improve their implementation. The severity classification in Table 1 also helps in this regard. For example, it might be noticed that the relative severity percentage of pedestrian, bicycle, motorcycle and railroad crashes are significantly higher than the other categories, as is true for the top three categories as well. This is an important aspect to be considered when the ultimate goal is reducing deaths.

2. Procedure for the Problem Identification (8.3.1)

The overall problem identification for the Alabama Highway Safety Plan (HSP) begins with the most recently generated data for Table 1. This arranges crash types by the number of fatalities and sets a priority if in fact, “all other things were equal.” But all other things are not equal, and further analysis is needed to account for countermeasure effectiveness and cost. Nevertheless Table 1 serves very effectively in giving everyone in the traffic safety community a high level view of the source of fatalities as well as how these fatalities are also reflected in the lower severity crashes.

Two entries in Table 1 are important with regard to the Occupant Protection Plan. The following defines these two entries:

91. Restraint-Deficient Crashes (RD) – any crash in which one or more of the occupants of any involved vehicle (including drivers) were not properly restrained; and
92. Child Restraint-Deficient Crashes (CRD) – any crash in which one or more children who are subject to child restraint laws were not properly restrained, independent of the restraint characteristics of the other occupants.

Clearly RD is at the top of this list, demonstrating that occupant restraint is one of the most critical issues in traffic safety and fatality reduction. Child Restraint Deficiencies (CRD) are near the bottom of Table 1 with only five fatalities. This reflects the extreme efforts that have gone into child protection by several agencies throughout the state. Special emphasis is given to children who are quite vulnerable if not properly restrained, and the importance of maintaining all of the child restraint programs is clear. The enforcement efforts for CRD is effectively the same as that for RD.

Table 1 shows clearly that one of the most effective ways of reducing fatalities is to increase restraint use, and this example will be used to further illustrate the problem identification process that is applied to all potential countermeasures. In reading through this example, please do not restrict your consideration to only seatbelts, but recognize how the same principles apply to any and all countermeasures under consideration. See references at end of this section.

The next step in the problem identification process is to analyze the data for these crashes and determine all of the demographics related to them (e.g., the who, what, where, when, how, how old, and the “why” of crashes involving non-restrained occupants). The goal is to (1) determine the most effective countermeasures that can be applied, and once these are defined, (2) identify the best tactics to be applied within each.

This starts by determining those types of crashes that were going to be targeted for occupant protection countermeasure implementation. For example, a recent study determined a very strong correlation between Restraint Deficiencies (RD) and other risky driving characteristics. In particular, DUI (alcohol and other drugs) and speed were correlated with non-use, and younger drivers 16-25 were particularly vulnerable. Young drivers are particularly susceptible to risk taking behaviors due to the fact that the part of their brain that properly assesses risk is not fully developed until age 25. While the average seatbelt use rate for all occupants has been measured above 90%, for those involved in fatal crashes the use rate was approximately 45%.

(See AL Fatalities at <http://www.safehomealabama.gov/PlansAnalysis/FARSandALFatalities.aspx>)

Evidence-based enforcement (E-BE) has been determined to be one of the most effective methods for increasing restraint use in general. This requires that specific locations be identified where there were concentrations of crashes involving unrestrained occupants. Once these hotspots are defined using the Critical Analysis Reporting Environment (CARE) software, the Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Coordinators across the state are given information on the hotspot locations for the state as a whole. They were also provided detailed hotspot reports specific to their region to assist them in focusing their area efforts. Using the reports and maps developed for each region, the CTSP/LEL Coordinators develop plans, including the time schedule and work assignments, for their respective regions that focuses on the hotspot locations.

In order to manage the AOHS's programs, staff are employed at the state level. Planning and Administration (P&A) costs are those direct and indirect expenses that are attributable to the overall management of the State's HSP. Costs include salaries and related personnel benefits for the GRs and for other technical, administrative and clerical staff in the SHSOs. P&A costs also include office expenses such as travel, equipment, supplies, rent and utilities necessary to carry out the functions of the SHSO. The level of funding in order to accommodate the state office's needs is evaluated each year, just as in other program areas.

Associated Performance Measures

Planned Activities

Planned Activities in Program Area

Unique Identifier	Planned Activity Name	Primary Countermeasure Strategy ID
PA-20-FP-PA	Planning and Administration	Planning & Administration

Planned Activity: Planning and Administration

Planned activity number: **PA-20-FP-PA**

Primary Countermeasure Strategy ID: **Planning & Administration**

Planned Activity Description

P & A will include both direct and indirect costs for personnel with their associated costs. Personnel in the direct cost category include the Public Safety Unit Chief who will spend approximately 50% of his time on highway traffic safety related issues. Personnel in the indirect cost category will use ADECA Indirect Cost Rate, which includes the LETS Division Chief/GR, an Administrative Assistant, the LETS Accounting Unit Manager and one Accounting Staff Member devoted to highway traffic safety. All P & A costs will be split 50% Federal and 50% State.

Intended Subrecipients

Alabama Department of Economic and Community Affairs

Countermeasure strategies

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act NHTSA 402	Planning and Administration (FAST)	\$300,000.00	\$300,000.00	\$0.00

Program Area: Police Traffic Services

Description of Highway Safety Problems

The HSP is completely evidence-based as demonstrated by the results of these problem identification steps that are documented in detail in the plan.

AOHS also works with the University of Alabama Center for Advanced Public Safety (UA-CAPS) to assist with the problem identification, and to work with the AOHS staff in assembling a tentative statewide planning document. Using the CARE system, a complete listing and mapping of problem crash locations (or hotspots) throughout the state is developed. In addition to a breakdown by CTSP/LEL region, the results are also subdivided by crash type and roadway classification. This is because different agencies may deal with different roadway classifications, and different tactics may be applied to different types of crashes.

A similar exercise involves the ALEA/State Troopers Division, which is given information on interstates and rural state routes that it is responsible to patrol. Generally, each ALEA region receives a package of information that is formatted just like the statewide results, but tailored to their particular region or roadway subset. In addition, all agencies have access to the preliminary statewide plan. By providing both statewide information and information specific to each area, the regional coordinators are able to identify the problems and locations in their region, and they can also determine how these locations relate to the statewide plan.

Once this information is provided to the CTSP/LEL Coordinators, they are instructed to focus their plans for the coming year on the hotspot locations given in the reports for their region. At this point it is a minor adjustment for them to revise the hotspot definition part of their plan. Other issues presented in their tentative plans are reviewed by AOHS staff to assure integrity and consistency among the regions. The enforcement program are continuously evaluated, and any necessary adjustments are made. The implementation of the Evidence-Based Enforcement Plan is demonstrated below in the following sections by major issue areas:

93. Impaired driving and speed related crash hotspots – 402 funds
94. Alcohol- and drug-related crashes hotspots – 405d funds
95. Restraint-deficient hotspots – 405b funds

These enforcement efforts are supported by media campaigns to the extent possible. The value of such integrated enforcement efforts is demonstrated by studies referenced in Page 1-24 of *NHTSA Countermeasures that Work*, the URL reference:

Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices, Eighth Edition, 2015

<http://www.safehomealabama.gov/Portals/0/PDF/Countermeasures%20that%20Work%20811727.pdf>

Beginning in 2010 it was determined that a tool should be established to enable decision-makers to view the state's traffic safety issues at the highest possible level. This tool was named "Table 1" and it appears below. It was reasoned that, all other things being equal, traffic safety resource

allocations should go to address those issues that cause the greatest number of fatalities. While this is a good default position to start from, all other things are rarely equal, and optimal resource allocations must also take into account the cost of the countermeasures being considered and the proportion of the crashes that can reasonably be reduced by any given countermeasure. Thus, an item with a lower number of fatalities could become optimal to address if a lower cost countermeasure would reduce a larger number of its crashes.

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Table 1 for the FY2020 HSP

Top Fatality Causes; Alabama CY2018 Data

Crash Type (Causal Driver)	Fatal Number	Fatal %	Injuries	Injury %	PDO No.	PDO %	Total
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3. ID/DUI	169	3.05%	2,135	38.59%	3,228	58.35%	5,532

All Substances							
4. Hit Obstacle on Roadside	124	1.87%	2,126	32.14%	4,365	65.99%	6,615
5. Pedestrian, Bicycle, School Bus	117	7.04%	939	56.53%	605	36.42%	1,661
6. Fail to Yield or "Ran ..." (All)	114	0.37%	7,676	24.92%	23,010	74.71%	30,800
7. Mature (65 or Older) Causal	112	0.75%	3,249	21.76%	11,567	77.49%	14,928
8. Pedestrian Involved	106	13.97%	621	81.82%	32	4.22%	759
9. License Deficiency Causal Driver	103	1.59%	2,018	31.22%	4,342	67.18%	6,463
10. Wrong Way Items	99	2.10%	1,042	22.06%	3,582	75.84%	4,723
11. Youth (16-20)	86	0.37%	5,110	21.91%	18,129	77.72%	23,325

Causal Driver							
12. Motorcycle Involved	76	4.93%	1,065	69.02%	402	26.05%	1,543
13. Aggressive Operation	70	2.44%	856	29.89%	1,938	67.67%	2,864
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20. Vision Obscured	10	0.84%	320	26.87%	861	72.29%	1,191
21. Bicycle	9	3.53%	206	80.78%	40	15.69%	255

22.	4	7.69%	23	44.23%	25	48.08%	52
Railroad Trains							
23.	4	0.84%	207	43.49%	265	55.67%	476
Child Restraint Deficient *							
24.	3	2.34%	28	21.88%	97	75.78%	128
Roadway Defects – All							
25.	2	0.31%	112	17.31%	533	82.38%	647
School Bus Involved							

* All categories list number of crashes except for the “Seat Belt Restraint Fault” and “Child Restraint Fault” categories. The restraint categories cannot accurately be measured by number of crashes so they list number of unrestrained persons for each severity classification.

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Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-1) Number of traffic fatalities (FARS)	2020	5 Year	964
2020	C-2) Number of serious injuries in traffic crashes (State crash data files)	2020	5 Year	8,143

2020	C-3) Fatalities/VMT (FARS, FHWA)	2020	5 Year	1.35
2020	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	2020	5 Year	374
2020	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	2020	5 Year	257
2020	C-6) Number of speeding-related fatalities (FARS)	2020	5 Year	262
2020	C-7) Number of motorcyclist fatalities (FARS)	2020	5 Year	82
2020	C-8) Number of unhelmeted motorcyclist fatalities (FARS)	2020	5 Year	8
2020	C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)	2020	5 Year	126
2020	C-10) Number of pedestrian fatalities (FARS)	2020	5 Year	110
2020	C-11) Number of bicyclists fatalities (FARS)	2020	5 Year	7
2020	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	2020	5 Year	91

Countermeasure Strategies in Program Area

Countermeasure Strategy
High Visibility Enforcement

Countermeasure Strategy: High Visibility Enforcement

Program Area: **Police Traffic Services**

Project Safety Impacts

To implement the State’s Evidence-Based Enforcement Plan, there will be four local Selective Traffic Enforcement Program (STEP) projects during the coming year as well as one statewide STEP project. Each of these STEP projects will focus on Hotspot crashes and the problem locations that have been identified across the state. One STEP project will take place in each of the four CTSP/LEL regions and the statewide STEP project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA). By conducting these STEP projects, additional efforts can be focused on the reduction of impaired driving related crashes and speed related crashes. The Law Enforcement activity will be sustained for twelve (12) months. The enforcement effort is evidence-based, with the objective of preventing traffic violations, crashes,

and crash fatalities and injuries in locations most at risk. The enforcement program will continuously be evaluated and the necessary adjustment will be made.

There will also be four local Alcohol High Visibility Enforcement projects during the coming year as well as one statewide Alcohol High Visibility Enforcement project. Each of these projects will focus on alcohol related Hotspot crashes and the problem locations that have been identified across the state. One project will take place in each of the four CTSP/LEL regions and the statewide project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA). By conducting these HVE projects, additional evidence-based efforts can be focused on the reduction of impaired driving related crashes. The law enforcement activity will be sustained for twelve (12) months. However, at least three additional “Drive Sober or Get Pulled Over” mobilizations will take place during holiday periods known for increased travel and a higher potential for impaired motorists to be on the roadways and in conjunction with a paid media campaign. These periods include Christmas and New Year’s, St. Patrick’s Day, Cinco de Mayo and the Fourth of July. For the fifth year since 2015, this HVE campaign will be accompanied by a comprehensive, multiplatform media campaign throughout the state. The enforcement effort is evidence-based, which will prevent traffic violations, crashes, and crash fatalities and injuries in locations most at risk. The enforcement program will continuously be evaluated and the necessary adjustments will be made. *NHTSA Countermeasures that Work* (Page 1-21) reviewed intensive alcohol selective enforcement efforts such as publicized saturation patrol programs. These patrols aim to deter driving after drinking by increasing the perceived risk of arrest.

The value of such integrated enforcement efforts is demonstrated by studies referenced in Page 1-24 of *NHTSA Countermeasures that Work*. In one study a three-site evaluation of integrated impaired driving, speed, and seat belt use enforcement indicated that “sites that combined high publicity with increased enforcement reduced crashes likely to involve alcohol (such as single-vehicle nighttime crashes) by 10% to 35%. Another study of comprehensive programs in six communities used integrated enforcement methods where it was reported that these programs reduced fatal crashes involving alcohol by 42%. About half the speeding drivers detected through these enforcement activities had been drinking and about half the impaired drivers were speeding. It is well established that the same risk-taking motivations that seem to compel some drivers to be impaired and speed also leads them to avoid using proper restraints.

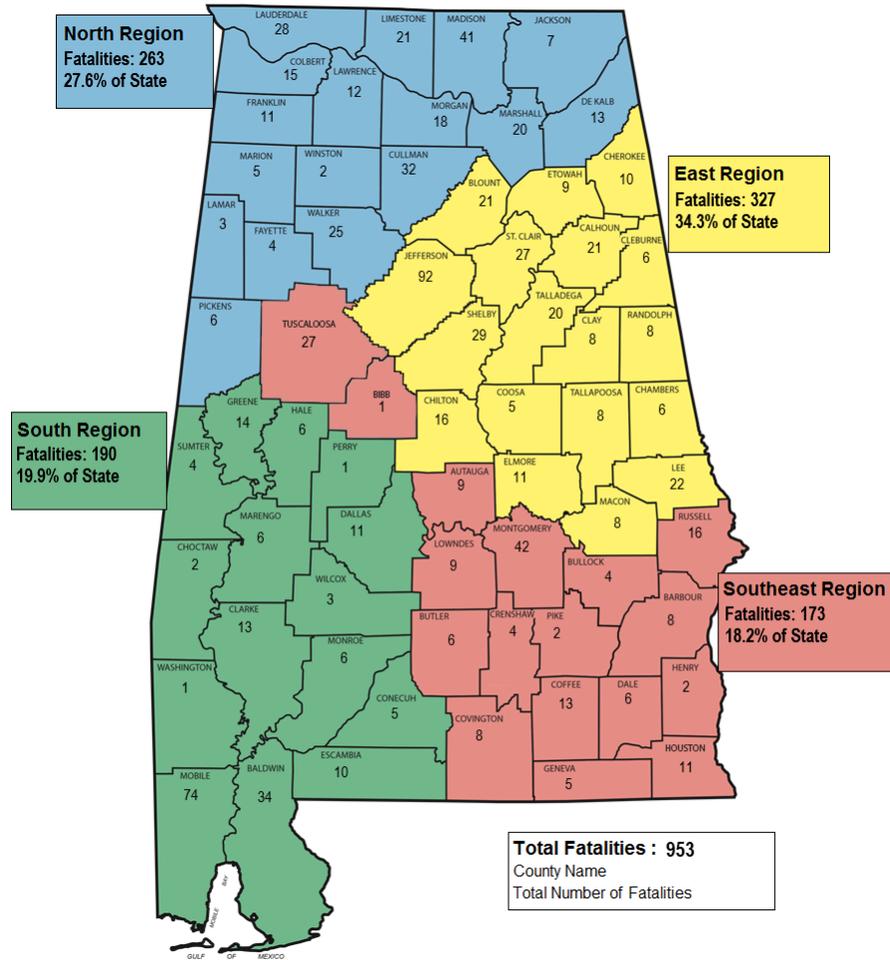
They recommend saturation patrols that are publicized extensively and conducted regularly, as well as roving patrols in which individual patrol officers concentrate on detecting and arresting impaired drivers in an area where impaired driving is common or where alcohol-involved crashes have occurred. A demonstration program in Michigan, where sobriety checkpoints are prohibited by State law, revealed that saturation patrols can be effective in reducing alcohol-related fatal crashes when accompanied by intensive publicity.

It is projected that High Visibility Enforcement projects in each of the CTSP/LEL and State Trooper Regions conducted year round and during targeted holiday periods, when tied with a multimedia PI&E campaign will achieve the following :

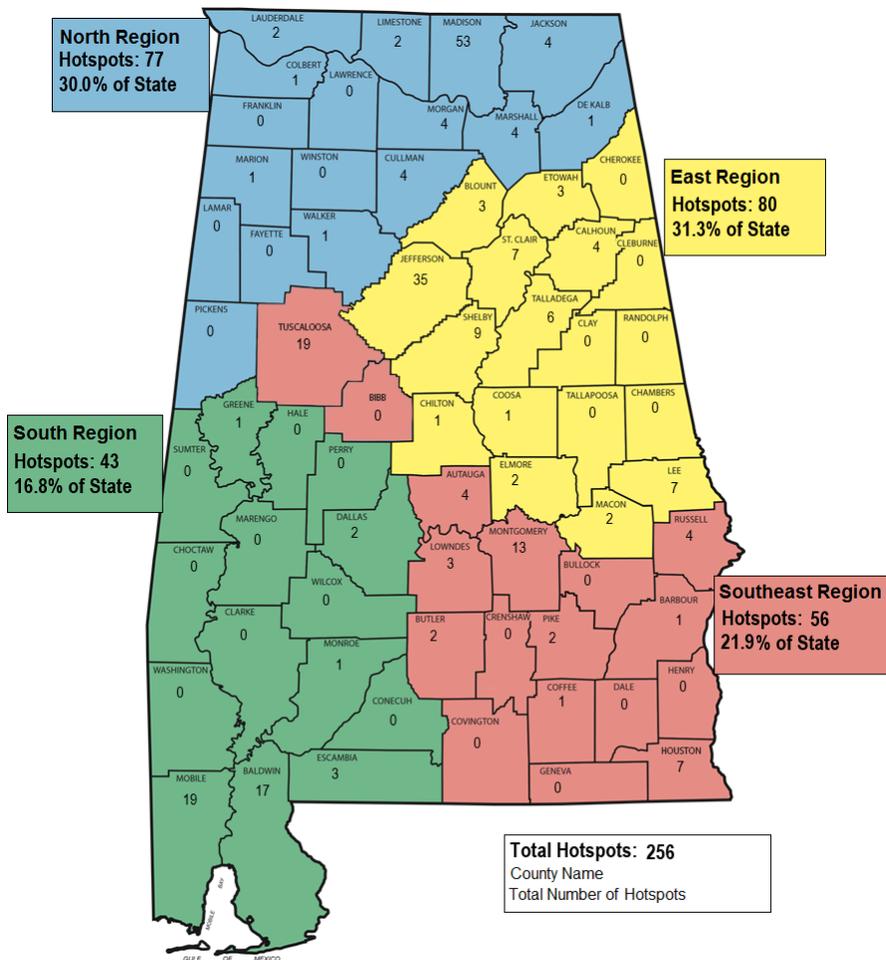
- 96. Reduce of the number and severity of the hotspots found over time.
- 97. Increase of the number of citations by citation type issued over time.

The maps below reflect the fatalities and hot spots in each CTSP area in the state.

State Map with Fatalities by Region



State Map with Hot Spots by Region



Linkage Between Program Area

As part of the Alabama Office of Highway Safety (AOHS) traffic safety planning effort, special problem identification studies are performed for the various program areas chosen. When any new issues arise, or for all countermeasures for which discretionary funds are expended, special analytical procedures are employed. The process is as follows:

98. Analyze results of problem identification to set performance measure targets for the program year
99. Evaluate the potential overall countermeasure strategies at a very high level in the light of evidence-based information that is generated primarily from crash records with some supplements provided by citation records.
100. Select the overall programs that will be implemented from a strategic point of view.
101. Use further analytics to fine-tune the particular countermeasures that will be implemented, e.g., the specific locations for selective enforcement and determine allocation of funds.

This analytical review includes all of the countermeasures that are presented in this plan as well as the particular tactics to be applied in their implementations

After reviewing performance goals, the AOHS then examines and selects countermeasures to help achieve the state's targets. The following outlines the strategies of countermeasures to be applied during FY 2020:

102. Community Traffic Safety Programs/Law Enforcement Liaison (CTSP/LEL) – will provide coordination for the local implementations of the statewide occupant protection program, and the CTSP/LEL Coordinators and the administrative support for their offices will be maintained.
103. The University of Alabama Center for Advanced Public Safety (UA-CAPS) will provide the information required for allocating traffic safety resources in an optimal way, and they will continue to be supported in providing AOHS with Alabama crash and traffic safety data throughout the year.
104. Conduct four local Hotspot Evidence-Based Enforcement Program (E-BEP) projects, one within each of the CTSP/LEL regions focusing on hotspot locations.
105. Perform a statewide E-BE project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA), also focusing on hotspot locations.
106. Continue the Law Enforcement Liaison (LEL) programs statewide. Beginning in FY 2007, this program was absorbed by the regional CTSP/LEL offices and was funded through the Community Traffic Safety Projects. This funding arrangement will continue in FY 2020.
107. Participate in national and regional High Visibility Enforcement campaign on the statewide level, paired with a corresponding mass media campaign.

Funding allocation is determined by evaluating the threshold of resources that are required to carry out each planned activity for the duration of the project in a calculated and realistic manner.

Rationale

AOHS's problem identification process analyzes the data for crashes and determines all of the demographics related to them (e.g., the who, what, where, when, how, how old, and the “why” of crashes involving non-restrained occupants). The goal is to (1) determine the most effective countermeasures that can be applied, and once these are defined, (2) identify the best tactics to be applied within each.

This starts by determining those types of crashes that were going to be targeted for occupant protection countermeasure implementation. For example, a recent study determined a very strong correlation between Restraint Deficiencies (RD) and other risky driving characteristics. In particular, DUI (alcohol and other drugs) and speed were correlated with non-use, and younger drivers 16-25 were particularly vulnerable. Young drivers are particularly susceptible to risk taking behaviors due to the fact that the part of their brain that properly assesses risk is not

fully developed until age 25. While the average seatbelt use rate for all occupants has been measured above 90%, for those involved in fatal crashes the use rate was approximately 45%.

(See Fatalities at <http://www.safehomealabama.gov/PlansAnalysis/FARSandALFatalities.aspx>)

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Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
M5HVE-20-DS-M5	Drive Sober or Get Pulled Over High Visibility Enforcement Campaign
M5HVE-20-ID-M5	Impaired Driving - High Visibility Enforcement Campaign
M5PEM-20-ID-M5	Impaired Driving- Paid Media Campaign
PT-20-FP-PT	Evidence-Based Traffic Safety Enforcement Program

Planned Activity: Drive Sober or Get Pulled Over High Visibility Enforcement Campaign

Planned activity number: **M5HVE-20-DS-M5**

Primary Countermeasure Strategy ID: **High Visibility Enforcement**

Planned Activity Description

In addition to the paid media, we will have a High Visibility Enforcement program for a two week period. The enforcement program will consist of members from the Municipal Law Enforcement Agencies, County Sheriffs and Alabama Law Enforcement Agency. This campaign will begin in August and conclude on Labor Day.

Intended Subrecipients

Regional CTSP/LEL offices

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
High Visibility Enforcement
High Visibility Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405d Impaired Driving Mid	405d Mid HVE (FAST)	\$200,000.00	\$50,000.00	

Planned Activity: Impaired Driving - High Visibility Enforcement Campaign

Planned activity number: **M5HVE-20-ID-M5**

Primary Countermeasure Strategy ID: **High Visibility Enforcement**

Planned Activity Description

Intended Subrecipients

The Alabama Law Enforcement Agency and Regional CTSP/LEL offices

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
High Visibility Enforcement
High Visibility Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405d Impaired Driving Mid	405d Mid HVE (FAST)	\$1,100,000.00	\$275,000.00	

Planned Activity: Impaired Driving- Paid Media Campaign

Planned activity number: **M5PEM-20-ID-M5**

Primary Countermeasure Strategy ID: **High Visibility Enforcement**

Planned Activity Description

As a part of the nationwide impaired driving campaign to reduce impaired driving-related fatalities, Alabama will participate in High Visibility Impaired Driving Enforcement Paid Media Campaigns for the fifth year since 2015. The campaign messages will be placed and aired during holiday periods known for increased travel and a higher potential for impaired motorists to be on the roadways. These periods include Christmas and New Year's, St. Patrick's Day, Cinco de Mayo and the Fourth of July. Along with traditional print, radio and television advertisements, Auburn University will use additional means of reaching the motoring public. Through professional services contracts, Alabama will be also able to place campaign messages in movie theatres, as well as participate in an increased online presence via web ads and newer mediums such as iHeart Radio, Spotify and Pandora.

Intended Subrecipients

Auburn University

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
High Visibility Enforcement
High Visibility Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405d Impaired Driving Mid	405d Mid Paid/Earned Media (FAST)	\$700,000.00	\$175,000.00	

Planned Activity: Evidence-Based Traffic Safety Enforcement Program

Planned activity number: **PT-20-FP-PT**

Primary Countermeasure Strategy ID: **High Visibility Enforcement**

Planned Activity Description

To implement the State's Evidence-Based Enforcement Plan, there will be four local Selective Traffic Enforcement Program (STEP) projects during the coming year as well as one statewide STEP project. Each of these STEP projects will focus on Hotspot crashes and the problem locations that have been identified across the state. One STEP project will take place in each of

the four CTSP/LEL regions and the statewide STEP project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA). By conducting these STEP projects, additional efforts can be focused on the reduction of impaired driving related crashes and speed related crashes. The Law Enforcement activity will be sustained for twelve (12) months. The enforcement effort is evidence-based, with the objective of preventing traffic violations, crashes, and crash fatalities and injuries in locations most at risk. The enforcement program will continuously be evaluated and the necessary adjustment will be made.

Intended Subrecipients

The Alabama Law Enforcement Agency and Regional CTSP/LEL offices

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
High Visibility Enforcement
High Visibility Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	\$280,000,000.00	\$700,000.00	\$2,000,000.00

Program Area: Traffic Records

Description of Highway Safety Problems

The AOHS undergoes a Traffic Records Assessment (TRA) every five years in order to evaluate the performance and status on the requirements of the information systems within the state. The following gives a summary of the AOHS TSIS plan according to the seven operational components plus the administrative component into which they were organized by NHTSA after a TRA in 2016:

108. *General TSIS Management Component* was established for the management and administration of the Traffic Records Coordinating Committee (TRCC), and to provide for functions that are common to all other components (such as the administration of Quality Control). It is not intended to usurp the management authority of any of the agencies that are involved in the support of operation of the TSIS in serving its coordinating function.
109. *Crash Component* includes the total 100% roll-out and subsequent upgrades to eCrash, further integration of GIS capabilities into eCrash and CARE, the generation of an updated Crash Facts Book, and the development of the Automated Dashboards for Visualization Analysis and Coordinated Enforcement (ADVANCE) to produce a more effective interface to deliver CARE-generated information. This anticipates a second version of eCrash to be developed based on 1) the most recent MMUCC specifications, 2) the availability of automated location systems, 3) feedback as to improvements needed to make the eCrash data entry system more effective, and 4) data quality improvements. Longer term plans call for a system to allow the public to report potential crash incidents (e.g., a voluntary crash reporting system for deer strikes), the development of a centralized (enterprise) CARE system, the completion of the advanced collision diagramming system, and the development of software that will enable the generation of hotspots based on GIS coordinates.
110. *Vehicle Component* plans include the development and roll-out of an electronically readable barcode on the registration receipt and a statewide distribution network that will make vehicle information immediately available to all consumers of these data in the state, including the LETS system. Other projects call for improved online insurance verification to support law enforcement civil assessments on uninsured motorists and the development of the data infrastructure to support crash avoidance and ultimately driverless vehicles. A number of projects are specified all of which have the commonality of transforming all of the current systems to a higher level of technology. Projects are anticipated in the future to address data needs regarding safety issues of autonomous vehicles.
111. *Driver Component* calls for more effective driver licensing information (including pictures) to be distributed to the field through the extremely successful Law Enforcement Tactical System (LETS) that was implemented well over a decade ago. This will require a more effective Driver History database, which will be updated automatically by eCrash and eCite, to be available to officers in the field via an upgraded new version of the

Mobile Officer's Virtual Environment (MOVE) system, which is the umbrella portal system that encompasses all of the mobile applications available to law enforcement. It will also entail PI&E projects that will address drivers transitioning to vehicles with advance crash prevention systems. Finally, a study is proposed to identify methods by which driver and other records can be protected against fraudulent uses. There will also be a major integration effort for the purpose of generating analytics from the integration of the driver history records with crash, eCite, and other databases. This component will also include upgrades to the NCIC incident/arrest system (ULTRA).

112. *Roadway Component* involves a wide diversity of projects in support of the State's Interactive Highway Safety Design Manual (IHSDM), Highway Safety Manual (HSM), and Safety Analyst (SA) initiatives (IHSDM/HSM/SA initiatives). The primary focus of plans in this component address continuing to develop and populate a repository of the Model Inventory of Roadway Elements (MIRE) for both state and local routes. Ultimately this database will be used in the integration of roadway features into CARE and the integration of Crash Modification Factors (CMFs) into the Cost-benefit Optimization for the Reduction of Roadway Environment Caused Tragedies (CORRECT) system using the facilities of the CMF Clearinghouse. To effectively locate crashes on the roadway, the plan is for ALDOT to complete their various GIS projects so that the results can be integrated into eCrash and used by CARE to fully employ its GIS displays capabilities. Major advances in safety are anticipated with the implementation of the Roadway Improvement Safety Evaluation (RISE) system, which will leverage resources from routine maintenance projects into safety corridor projects along the segment being maintained.
113. *Citation and Adjudication Component* includes the extension and roll out of the electronic citation to all jurisdictions, a proposed improved virtual DUI defendant intake system, a method for moving digital information directly to the field officers using available cell phones, a statewide Internet-based incident reporting network, and technological advances to make the traffic citation reporting and processing system totally paperless.
114. *EMS-Medical Component* includes continued support for the completion of the deployment of the Recording of Emergency Services Calls and Urgent-Care Environment (RESCUE) system, which will implement the National Emergency Medical Services Information System (NEMSIS) standards. Other planned projects include an ambulance stationing research project, the development of a spinal injury database, and a pilot project to reduce EMS delay time to the scene of crashes with a moving map display. This will be accomplished by the implementation of the Mobile Officers' Virtual Environment (MOVE) in EMS vehicles and the processing of trauma center and EMS run time data through CARE and ADVANCE. Finally, a project to develop the First Responder Solution Technique (FIRST) seeks to provide Law Enforcement agencies with quick, accurate, and location-aware inventory of available emergency medical assistance facilities.

115. *Integration and Information Distribution Component* considers results produced from all of the planned projects, and thus transcends them with the goal of integrating data and results from the six operational components above, producing information from these integrations, and distributing this information. A major effort is proposed to populate the current Safe Home Alabama web portal so that it will integrate all of the information generated by all agencies and present it in one unified source to the traffic safety community. An example of this is the Safety Portal that is a hub for all traffic safety and related data analytics. Considerations for maintaining and upgrading this Safety Portal are planned. General innovations of MOVE and the use of mobile platforms for MOVE and its applications are also included. Integration is also necessary for the Data-Driven Approaches to Crime and Traffic Safety (DDACTS) that are now being recommended by various federal agencies. Finally, a number of ETLs (Extract-Transition-Load) will be developed to enable the integration of crash, citation, roadway, EMS/injury and vehicle data so that analytics can be performed on these datasets to generate information that is not currently available.

Associated Performance Measures

Countermeasure Strategies in Program Area

Countermeasure Strategy
Improves accessibility of a core highway safety database
Improves accuracy of a core highway safety database
Improves completeness of a core highway safety database
Improves timeliness of a core highway safety database
Improves uniformity of a core highway safety database

Countermeasure Strategy: Improves accessibility of a core highway safety database

Program Area: **Traffic Records**

Project Safety Impacts

The countermeasure strategy is to improve accessibility of a core highway safety database. The projects this year will improve accessibility to more than one core highway safety database. Of particular emphasis this year will be accessibility to the crash and the EMS database. The accessibility will be improved by providing this data to users on a statistical and analytics web-based portal.

Improving accessibility of the crash data to all users (including law enforcement, traffic safety professionals and even the general public) and the Emergency Medical Service data to qualified users is of utmost importance because of the usefulness of the information the portal dashboards

produce and the impact it can have on planning, both strategic long-term planning and day-to-day planning.

This countermeasure will greatly compliment other similar data attribute improvement countermeasures that will be targeted in these traffic records projects. All of the countermeasures relate to improvements in some aspect of the data.

Linkage Between Program Area

The State's Traffic Safety Information System (TSIS) is driven by a five year Strategic Plan, which has the objective of allocating 405c funds to provide information to allocate traffic safety countermeasure resources in the best possible way. Both transactional and analytical data are generated from the various traffic records systems modules, which have been divided functionally by NHTSA into the following modules: (1) Management and Strategic Planning, (2) Crash, (3) Vehicle, (4) Driver, (5) Roadway, (6) Citation-Adjudication, (7) Injury Surveillance and (8) Data Use and Integration. Transactional data are obtained from day to day operations, e.g., crash case records, citation records, EMS run records – each of these records are originated by the occurrence of some event (e.g., crash, citation, injury). The basic purpose of transactional data is to keep a record of that particular occurrence. Analytical data, on the other hand, is usually more concerned with aggregating transactional data in order to draw conclusions (produce information) that is useful in strategic planning and the operational implementation of tactical factors that improve the effectiveness of the use of available traffic safety resources.

Alabama Office of Highway Safety has recognized for decades the role that Traffic Safety Information Systems (TSIS) plays in identifying optimal countermeasure implementation. This process starts with annual problem identification efforts that have been ongoing for decades. Our objective is to first identify the subset of countermeasures that have the highest potential for crash reduction, and then to select the optimal set of countermeasures out of all proposed alternatives. It is a two-phase process starting with determining the crash types that will be addressed, and then finding the most promising countermeasures that address these crashes.

AOHS has set the following high level goals regarding its traffic records efforts:

116. To ensure that all agencies with responsibility for traffic safety have timely access and complete information needed to identify problems, select optimal countermeasures, and evaluate implemented improvements.
117. To assure that effective data are available that pinpoint and target the exact locations of speed, impaired driving and restraint-deficient hotspots for each region in the state.
118. To administer the Section 405c funded projects so that the comprehensive traffic records plan developed to support those efforts is brought to fruition.
119. To provide support to innovations in moving toward better use of available technologies, e.g., data entry at the point of incidents, automated uploading, and paperless operations.
120. To support all efforts to move Toward Zero Deaths (TZD), including all roadway and vehicle technologies that will eventually lead to safer autonomous vehicle operations.

The planned activities for this project will have users on a statewide basis therefore meriting the funding that is being allocated to these projects. An expansive and huge impact will result from these projects.

Rationale

The NHTSA Traffic Records Program Assessment Advisory encourages the implementation of information quality best practices and the use of NHTSA’s Model Performance Measures for State Traffic Records Systems found in NHTSA document **DOT HS 811 441**. Data accessibility is one of the core performance attributes. Improved accessibility is therefore a worthy countermeasure.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
20-TF-TR-001	Traffic Safety Information Systems
M3DA-20-TR-M3	Traffic Safety Records Improvement Program

Planned Activity: Traffic Safety Information Systems

Planned activity number: **20-TF-TR-001**

Primary Countermeasure Strategy ID: **Improves completeness of a core highway safety database**

Planned Activity Description

The University of Alabama Center for Advanced Public Safety (CAPS) will continue to improve traffic safety by advancing data and statistical analysis tools. CAPS will continue to support information requests, assist in the development of the State’s Highway Safety Plan, and continue to spread eCite to law enforcement agencies throughout the state, maintain software systems, coordinate phone surveys regarding the drunk driving campaign, and maintain the SafaHomeAlabama.gov website.

Intended Subrecipients

University of Alabama

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Improves accessibility of a core highway safety database
Improves accuracy of a core highway safety database
Improves completeness of a core highway safety database

Improves uniformity of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	Other		\$950,000.00		

Planned Activity: Traffic Safety Records Improvement Program

Planned activity number: **M3DA-20-TR-M3**

Primary Countermeasure Strategy ID: **Improves completeness of a core highway safety database**

Planned Activity Description

The University of Alabama Center for Advanced Public Safety (CAPS) is seeking to continue to improve traffic safety through projects that include eCite and eCrash in the MOVE framework. The projects will include beginning development of a new version of eCrash, continuing deployment of a data entry system for EMS data for use in the field called RESCUE, continuing development work on analysis portals, beginning systems study to design a new version of eCite and upgrading MapClick to full eGIS compatibility. These systems improve data quality, timeliness, and completeness.

Intended Subrecipients

University of Alabama

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Improves accessibility of a core highway safety database
Improves accuracy of a core highway safety database
Improves completeness of a core highway safety database
Improves timeliness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
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2018	FAST Act 405c Data Program	405c Data Program (FAST)	\$650,000.00	\$162,500.00	
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Countermeasure Strategy: Improves accuracy of a core highway safety database

Program Area: **Traffic Records**

Project Safety Impacts

The countermeasure strategy is to improve accuracy of a core highway safety database. One of the projects this year is MapClick software attaining full consistency with the ALDOT linear referencing system. This project will improve accuracy in the crash database.

MapClick dramatically increases the accuracy of location coding and saves officers' time on every crash report since the map can be clicked in the officer's vehicle averting the need to find the location on a paper map. Further innovation of MapClick is essential so that officers can obtain *all* required location data (coordinates, node numbers, link numbers, road names, road codes and milepoints for all public routes) by a single click. It is essential to transition away from the traditional link/node locational system to a statewide ALDOT maintained Linear Reference System (LRS) for all roadways (whether on the state system or not).

Improving accuracy of the location components of the crash data is of extreme importance as it facilitates better analysis of the data. The location variables are some of the most important data that users want to know about the crash data. If the location data is faulty, it skews the hotspot analysis on which Alabama relies to direct enforcement efforts.

This countermeasure will greatly compliment other similar data attribute improvement countermeasures that will be targeted in these traffic records projects. All of the countermeasures relate to improvements in some aspect of the data.

Linkage Between Program Area

The State's Traffic Safety Information System (TSIS) is driven by a five year Strategic Plan, which has the objective of allocating 405c funds to provide information to allocate traffic safety countermeasure resources in the best possible way. Both transactional and analytical data are generated from the various traffic records systems modules, which have been divided functionally by NHTSA into the following modules: (1) Management and Strategic Planning, (2) Crash, (3) Vehicle, (4) Driver, (5) Roadway, (6) Citation-Adjudication, (7) Injury Surveillance and (8) Data Use and Integration. Transactional data are obtained from day to day operations, e.g., crash case records, citation records, EMS run records – each of these records are originated by the occurrence of some event (e.g., crash, citation, injury). The basic purpose of transactional data is to keep a record of that particular occurrence. Analytical data, on the other hand, is usually more concerned with aggregating transactional data in order to draw conclusions (produce information) that is useful in strategic planning and the operational implementation of tactical factors that improve the effectiveness of the use of available traffic safety resources.

Alabama Office of Highway Safety has recognized for decades the role that Traffic Safety Information Systems (TSIS) plays in identifying optimal countermeasure implementation. This process starts with annual problem identification efforts that have been ongoing for decades. Our objective is to first identify the subset of countermeasures that have the highest potential for maximum gain, and then to select the optimal set of countermeasures out of all proposed alternatives. It is a two-phase process starting with determining the crash types that will be addressed, and then finding the most promising countermeasures that address these crashes.

AOHS has set the following high level goals regarding its traffic records efforts:

121. To ensure that all agencies with responsibility for traffic safety have timely access and complete information needed to identify problems, select optimal countermeasures, and evaluate implemented improvements.
122. To assure that effective data are available that pinpoint and target the exact locations of speed, impaired driving and restraint-deficient hotspots for each region in the state.
123. To administer the Section 405c funded projects so that the comprehensive traffic records plan developed to support those efforts is brought to fruition.
124. To provide support to innovations in moving toward better use of available technologies, e.g., data entry at the point of incidents, automated uploading, and paperless operations.
125. To support all efforts to move Toward Zero Deaths (TZD), including all roadway and vehicle technologies that will eventually lead to safer autonomous vehicle operations.

The planned activities for this project will have users on a statewide basis therefore justifying the funding that is being allocated to these projects. Not only will law enforcement users benefit from this project but all data users will benefit with the improved accuracy of the data.

Rationale

The NHTSA Traffic Records Program Assessment Advisory encourages the implementation of information quality best practices and the use of NHTSA’s Model Performance Measures for State Traffic Records Systems found in NHTSA document **DOT HS 811 441**. Data accuracy is one of the core performance attributes. Improved accuracy is therefore a worthy countermeasure.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
20-TF-TR-001	Traffic Safety Information Systems
M3DA-20-TR-M3	Traffic Safety Records Improvement Program

Planned Activity: Traffic Safety Information Systems

Planned activity number: **20-TF-TR-001**

Primary Countermeasure Strategy ID: **Improves completeness of a core highway safety database**

Planned Activity Description

The University of Alabama Center for Advanced Public Safety (CAPS) will continue to improve traffic safety by advancing data and statistical analysis tools. CAPS will continue to support information requests, assist in the development of the State's Highway Safety Plan, and continue to spread eCite to law enforcement agencies throughout the state, maintain software systems, coordinate phone surveys regarding the drunk driving campaign, and maintain the SafaHomeAlabama.gov website.

Intended Subrecipients

University of Alabama

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Improves accessibility of a core highway safety database
Improves accuracy of a core highway safety database
Improves completeness of a core highway safety database
Improves uniformity of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	Other		\$950,000.00		

Planned Activity: Traffic Safety Records Improvement Program

Planned activity number: **M3DA-20-TR-M3**

Primary Countermeasure Strategy ID: **Improves completeness of a core highway safety database**

Planned Activity Description

The University of Alabama Center for Advanced Public Safety (CAPS) is seeking to continue to improve traffic safety through projects that include eCite and eCrash in the MOVE framework. The projects will include beginning development of a new version of eCrash, continuing deployment of a data entry system for EMS data for use in the field called RESCUE, continuing development work on analysis portals, beginning systems study to design a new version of eCite and upgrading MapClick to full eGIS compatibility. These systems improve data quality, timeliness, and completeness.

Intended Subrecipients

University of Alabama

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Improves accessibility of a core highway safety database
Improves accuracy of a core highway safety database
Improves completeness of a core highway safety database
Improves timeliness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405c Data Program	405c Data Program (FAST)	\$650,000.00	\$162,500.00	

Countermeasure Strategy: Improves completeness of a core highway safety database

Program Area: **Traffic Records**

Project Safety Impacts

The countermeasure strategy is to improve completeness of a core highway safety database. The projects this year will improve completeness to more than one core highway safety database. Of particular emphasis will be completeness in the crash and the EMS database. The completeness will be improved as the MMUCC 5 version of eCrash is developed and as more agencies start using the NEMSIS 3.4 compliant RESCUE, which is the electronic patient care report for EMS runs.

Improving completeness of the crash data and the EMS is extremely helpful and needful as UA-CAPS analyzes the data and provide this information to state agency partners and others so that the most accurate representation possible is provided.

This countermeasure will greatly compliment other similar data attribute improvement countermeasures that will be targeted in these traffic records projects. All of the countermeasures relate to improvements in some aspect of the data.

Linkage Between Program Area

The State's Traffic Safety Information System (TSIS) is driven by a five year Strategic Plan, which has the objective of allocating 405c funds to provide information to allocate traffic safety countermeasure resources in the best possible way. Both transactional and analytical data are generated from the various traffic records systems modules, which have been divided functionally by NHTSA into the following modules: (1) Management and Strategic Planning, (2) Crash, (3) Vehicle, (4) Driver, (5) Roadway, (6) Citation-Adjudication, (7) Injury Surveillance and (8) Data Use and Integration. Transactional data are obtained from day to day operations, e.g., crash case records, citation records, EMS run records – each of these records are originated by the occurrence of some event (e.g., crash, citation, injury). The basic purpose of transactional data is to keep a record of that particular occurrence. Analytical data, on the other hand, is usually more concerned with aggregating transactional data in order to draw conclusions (produce information) that is useful in strategic planning and the operational implementation of tactical factors that improve the effectiveness of the use of available traffic safety resources.

Alabama Office of Highway Safety has recognized for decades the role that Traffic Safety Information Systems (TSIS) plays in identifying optimal countermeasure implementation. This process starts with annual problem identification efforts that have been ongoing for decades. Our objective is to first identify the subset of countermeasures that have the highest potential for crash reduction, and then to select the optimal set of countermeasures out of all proposed alternatives. It is a two-phase process starting with determining the crash types that will be addressed, and then finding the most promising countermeasures that address these crashes.

AOHS has set the following high level goals regarding its traffic records efforts:

126. To ensure that all agencies with responsibility for traffic safety have timely access and complete information needed to identify problems, select optimal countermeasures, and evaluate implemented improvements.
127. To assure that effective data are available that pinpoint and target the exact locations of speed, impaired driving and restraint-deficient hotspots for each region in the state.
128. To administer the Section 405c funded projects so that the comprehensive traffic records plan developed to support those efforts is brought to fruition.
129. To provide support to innovations in moving toward better use of available technologies, e.g., data entry at the point of incidents, automated uploading, and paperless operations.
130. To support all efforts to move Toward Zero Deaths (TZD), including all roadway and vehicle technologies that will eventually lead to safer autonomous vehicle operations.

The planned activities for this project will have users on a statewide basis therefore meriting the funding that is being allocated to these projects. Since the projects are this extensive, huge impact will result from these projects.

Rationale

The NHTSA Traffic Records Program Assessment Advisory encourages the implementation of information quality best practices and the use of NHTSA's Model Performance Measures for State Traffic Records Systems found in NHTSA document **DOT HS 811 441**. Data completeness is one of the core performance attributes. Improved completeness is therefore a worthy countermeasure.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
20-TF-TR-001	Traffic Safety Information Systems
M3DA-20-TR-M3	Traffic Safety Records Improvement Program

Planned Activity: Traffic Safety Information Systems

Planned activity number: **20-TF-TR-001**

Primary Countermeasure Strategy ID: **Improves completeness of a core highway safety database**

Planned Activity Description

The University of Alabama Center for Advanced Public Safety (CAPS) will continue to improve traffic safety by advancing data and statistical analysis tools. CAPS will continue to support information requests, assist in the development of the State's Highway Safety Plan, and continue to spread eCite to law enforcement agencies throughout the state, maintain software systems, coordinate phone surveys regarding the drunk driving campaign, and maintain the SafaHomeAlabama.gov website.

Intended Subrecipients

University of Alabama

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Improves accessibility of a core highway safety database
Improves accuracy of a core highway safety database
Improves completeness of a core highway safety database
Improves uniformity of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	Other		\$950,000.00		

Planned Activity: Traffic Safety Records Improvement Program

Planned activity number: **M3DA-20-TR-M3**

Primary Countermeasure Strategy ID: **Improves completeness of a core highway safety database**

Planned Activity Description

The University of Alabama Center for Advanced Public Safety (CAPS) is seeking to continue to improve traffic safety through projects that include eCite and eCrash in the MOVE framework. The projects will include beginning development of a new version of eCrash, continuing deployment of a data entry system for EMS data for use in the field called RESCUE, continuing development work on analysis portals, beginning systems study to design a new version of eCite and upgrading MapClick to full eGIS compatibility. These systems improve data quality, timeliness, and completeness.

Intended Subrecipients

University of Alabama

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Improves accessibility of a core highway safety database
Improves accuracy of a core highway safety database
Improves completeness of a core highway safety database
Improves timeliness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405c Data Program	405c Data Program (FAST)	\$650,000.00	\$162,500.00	

Countermeasure Strategy: Improves timeliness of a core highway safety database

Program Area: **Traffic Records**

Project Safety Impacts

The countermeasure strategy is to improve timeliness of a core highway safety database. One of the projects this year will improve timeliness to the EMS database. The development of the Recording of Emergency Services Calls and Urgent-Care Environment (RESCUE) data entry system for the Electronic Patient Care Report (ePCR – also known as ambulance run reports) has been quite successful. As Alabama continues to expand the user base through the RESCUE project this year, the timeliness of the state EMS database will improve.

Improving timeliness of the EMS data for Alabama is very helpful as it facilitates better analysis of the data. In addition, the data can be transferred to the federal database in a more timely manner.

This countermeasure will greatly compliment other similar data attribute improvement countermeasures that will be targeted in these traffic records projects. All of the countermeasures relate to improvements in some aspect of the data.

Linkage Between Program Area

The State's Traffic Safety Information System (TSIS) is driven by a five year Strategic Plan, which has the objective of allocating 405c funds to provide information to allocate traffic safety countermeasure resources in the best possible way. Both transactional and analytical data are generated from the various traffic records systems modules, which have been divided functionally by NHTSA into the following modules: (1) Management and Strategic Planning, (2) Crash, (3) Vehicle, (4) Driver, (5) Roadway, (6) Citation-Adjudication, (7) Injury Surveillance and (8) Data Use and Integration. Transactional data are obtained from day to day operations, e.g., crash case records, citation records, EMS run records – each of these records are originated by the occurrence of some event (e.g., crash, citation, injury). The basic purpose of transactional data is to keep a record of that particular occurrence. Analytical data, on the other hand, is usually more concerned with aggregating transactional data in order to draw conclusions (produce information) that is useful in strategic planning and the operational implementation of tactical factors that improve the effectiveness of the use of available traffic safety resources.

Alabama Office of Highway Safety has recognized for decades the role that Traffic Safety Information Systems (TSIS) plays in identifying optimal countermeasure implementation. This process starts with annual problem identification efforts that have been ongoing for decades. Our objective is to first identify the subset of countermeasures that have the highest potential for maximum gain, and then to select the optimal set of countermeasures out of all proposed alternatives.

AOHS has set the following high level goals regarding its traffic records efforts:

131. To ensure that all agencies with responsibility for traffic safety have timely access and complete information needed to identify problems, select optimal countermeasures, and evaluate implemented improvements.
132. To assure that effective data are available that pinpoint and target the exact locations of speed, impaired driving and restraint-deficient hotspots for each region in the state.

- 133. To administer the Section 405c funded projects so that the comprehensive traffic records plan developed to support those efforts is brought to fruition.
- 134. To provide support to innovations in moving toward better use of available technologies, e.g., data entry at the point of incidents, automated uploading, and paperless operations.
- 135. To support all efforts to move Toward Zero Deaths (TZD), including all roadway and vehicle technologies that will eventually lead to safer autonomous vehicle operations.

The planned activities for this project will have users on a statewide basis therefore deserving the funding that is being allocated to this project. Not only will the state of Alabama benefit from this project but the federal reporting agency will benefit with the improved timeliness of the NEMSIS data.

Rationale

The NHTSA Traffic Records Program Assessment Advisory encourages the implementation of information quality best practices and the use of NHTSA’s Model Performance Measures for State Traffic Records Systems found in NHTSA document **DOT HS 811 441**. Data timeliness is one of the core performance attributes. Improved timeliness is therefore a worthy countermeasure.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
M3DA-20-HC-M3	Electronic Patient Care Reports Program
M3DA-20-TR-M3	Traffic Safety Records Improvement Program

Planned Activity: Electronic Patient Care Reports Program

Planned activity number: **M3DA-20-HC-M3**

Primary Countermeasure Strategy ID: **Improves accuracy of a core highway safety database**

Planned Activity Description

The NHTSA Traffic Records Program Assessment Advisory encourages the implementation of information quality best practices and the use of NHTSA’s Model Performance Measures for State Traffic Records Systems found in NHTSA document **DOT HS 811 441**. Data timeliness is one of the core performance attributes. Improved timeliness is therefore a worthy countermeasure.

Intended Subrecipients

Alabama Department of Public Health

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Improves timeliness of a core highway safety database
Improves uniformity of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405c Data Program	405c Data Program (MAP-21)	\$60,000.00	\$15,000.00	

Planned Activity: Traffic Safety Records Improvement Program

Planned activity number: **M3DA-20-TR-M3**

Primary Countermeasure Strategy ID: **Improves completeness of a core highway safety database**

Planned Activity Description

The University of Alabama Center for Advanced Public Safety (CAPS) is seeking to continue to improve traffic safety through projects that include eCite and eCrash in the MOVE framework. The projects will include beginning development of a new version of eCrash, continuing deployment of a data entry system for EMS data for use in the field called RESCUE, continuing development work on analysis portals, beginning systems study to design a new version of eCite and upgrading MapClick to full eGIS compatibility. These systems improve data quality, timeliness, and completeness.

Intended Subrecipients

University of Alabama

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Improves accessibility of a core highway safety database
Improves accuracy of a core highway safety database
Improves completeness of a core highway safety database
Improves timeliness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405c Data Program	405c Data Program (FAST)	\$650,000.00	\$162,500.00	

Countermeasure Strategy: Improves uniformity of a core highway safety database

Program Area: **Traffic Records**

Project Safety Impacts

The countermeasure strategy is to improve uniformity of a core highway safety database. The projects this year will improve uniformity to more than one core highway safety database. The uniformity of the crash data will be improved as UA-CAPS works to develop the MMUCC 5 version of eCrash. The uniformity of the location data will be improved as MapClick becomes fully consistent with the ALDOT linear referencing system. This location data will effect both crash and citation database as MapClick is used to populate eCrash and eCite. The uniformity of EMS data will improve as more agencies start using the NEMSIS 3.4 compliant RESCUE, which is the electronic patient care report for EMS runs.

Improving uniformity of the crash, citation and the EMS data is of utmost importance as it facilitates better analysis of the data. Improving uniformity to these two national data standards makes the Alabama data easier to compare to other states to see how we rank nationally and how traffic safety issues are trending.

This countermeasure will greatly compliment other similar data attribute improvement countermeasures that will be targeted in these traffic records projects. All of the countermeasures relate to improvements in some aspect of the data.

Linkage Between Program Area

The State's Traffic Safety Information System (TSIS) is driven by a five year Strategic Plan, which has the objective of allocating 405c funds to provide information to allocate traffic safety countermeasure resources in the best possible way. Both transactional and analytical data are generated from the various traffic records systems modules, which have been divided functionally by NHTSA into the following modules: (1) Management and Strategic Planning, (2) Crash, (3) Vehicle, (4) Driver, (5) Roadway, (6) Citation-Adjudication, (7) Injury Surveillance and (8) Data Use and Integration. Transactional data are obtained from day to day operations, e.g., crash case records, citation records, EMS run records – each of these records are originated by the occurrence of some event (e.g., crash, citation, injury). The basic purpose of transactional data is to keep a record of that particular occurrence. Analytical data, on the other hand, is usually more concerned with aggregating transactional data in order to draw conclusions

(produce information) that is useful in strategic planning and the operational implementation of tactical factors that improve the effectiveness of the use of available traffic safety resources.

Alabama Office of Highway Safety has recognized for decades the role that Traffic Safety Information Systems (TSIS) plays in identifying optimal countermeasure implementation. This process starts with annual problem identification efforts that have been ongoing for decades. Our objective is to first identify the subset of countermeasures that have the highest potential for maximum gain, and then to select the optimal set of countermeasures out of all proposed alternatives. It is a two-phase process starting with determining the crash types that will be addressed, and then finding the most promising countermeasures that address these crashes.

AOHS has set the following high level goals regarding its traffic records efforts:

136. To ensure that all agencies with responsibility for traffic safety have timely access and complete information needed to identify problems, select optimal countermeasures, and evaluate implemented improvements.
137. To assure that effective data are available that pinpoint and target the exact locations of speed, impaired driving and restraint-deficient hotspots for each region in the state.
138. To administer the Section 405c funded projects so that the comprehensive traffic records plan developed to support those efforts is brought to fruition.
139. To provide support to innovations in moving toward better use of available technologies, e.g., data entry at the point of incidents, automated uploading, and paperless operations.
140. To support all efforts to move Toward Zero Deaths (TZD), including all roadway and vehicle technologies that will eventually lead to safer autonomous vehicle operations.

The planned activities for these projects will have users on a statewide basis therefore deserving the funding that is being allocated to these projects. Since these projects are so widespread, immense impact will result from these projects.

Rationale

The NHTSA Traffic Records Program Assessment Advisory encourages the implementation of information quality best practices and the use of NHTSA's Model Performance Measures for State Traffic Records Systems found in NHTSA document **DOT HS 811 441**. Data uniformity is one of the core performance attributes. Improved uniformity is therefore a worthy countermeasure.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
20-TF-TR-001	Traffic Safety Information Systems
M3DA-20-HC-M3	Electronic Patient Care Reports Program

Planned Activity: Traffic Safety Information Systems

Planned activity number: **20-TF-TR-001**

Primary Countermeasure Strategy ID: **Improves completeness of a core highway safety database**

Planned Activity Description

The University of Alabama Center for Advanced Public Safety (CAPS) will continue to improve traffic safety by advancing data and statistical analysis tools. CAPS will continue to support information requests, assist in the development of the State's Highway Safety Plan, and continue to spread eCite to law enforcement agencies throughout the state, maintain software systems, coordinate phone surveys regarding the drunk driving campaign, and maintain the SafaHomeAlabama.gov website.

Intended Subrecipients

University of Alabama

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Improves accessibility of a core highway safety database
Improves accuracy of a core highway safety database
Improves completeness of a core highway safety database
Improves uniformity of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	Other		\$950,000.00		

Planned Activity: Electronic Patient Care Reports Program

Planned activity number: **M3DA-20-HC-M3**

Primary Countermeasure Strategy ID: **Improves accuracy of a core highway safety database**

Planned Activity Description

The NHTSA Traffic Records Program Assessment Advisory encourages the implementation of information quality best practices and the use of NHTSA's Model Performance Measures for State Traffic Records Systems found in NHTSA document **DOT HS 811 441**. Data timeliness is

one of the core performance attributes. Improved timeliness is therefore a worthy countermeasure.

Intended Subrecipients

Alabama Department of Public Health

Countermeasure strategies

Countermeasure strategies in this planned activity

Countermeasure Strategy
Improves timeliness of a core highway safety database
Improves uniformity of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405c Data Program	405c Data Program (MAP-21)	\$60,000.00	\$15,000.00	

Evidence-based traffic safety enforcement program (TSEP)

Planned activities that collectively constitute an evidence-based traffic safety enforcement program (TSEP):

Unique Identifier	Planned Activity Name
M1HVE-20-OP-M1	Click It or Ticket High Visibility Enforcement Campaign
M1PEM-20-OP-M1	Click It or Ticket Paid Media Campaign
M5HVE-20-DS-M5	Drive Sober or Get Pulled Over High Visibility Enforcement Campaign
PT-20-FP-PT	Evidence-Based Traffic Safety Enforcement Program
M5HVE-20-ID-M5	Impaired Driving - High Visibility Enforcement Campaign
M5PEM-20-ID-M5	Impaired Driving- Paid Media Campaign

Analysis of crashes, crash fatalities, and injuries in areas of highest risk.

Crash Analysis

Beginning in 2010 it was determined that a tool should be established to enable decision-makers to view the state's traffic safety issues at the highest possible level. This tool was named "Table 1" and it appears below. It was reasoned that, all other things being equal, traffic safety resource allocations should go to address those issues that cause the greatest number of fatalities. While this is a good default position to start from, all other things are rarely equal, and optimal resource allocations must also take into account the cost of the countermeasures being considered and the proportion of the crashes that can reasonably be reduced by any given countermeasure. Thus, an item with a lower number of fatalities could become optimal to address if a lower cost countermeasure would reduce a larger number of its crashes.

The eCrash system that went into effect July 1, 2009 creates data that meets most of the Model Minimum Uniform Crash Criteria (MMUCC). It provides data that are much timelier, since in many cases these reports are available the same day as the crash. Careful work was done to ensure that no variables or codes that could indicate a particular crash category of Table 1 were missed, and that the search criteria captured all of the crashes for each of the particular categories for this evidence-based analysis.

There are no limitations on the various subjects that may be added for consideration in Table 1, and all SHSP participants are encouraged to add any categories that they feel are appropriate. Distracted Driving (DD) was the most recently added for the FY 2018 HSP. The category with the highest number of fatal crashes is listed at the top of Table 1, descending to the crash type category with the lowest number of fatal crashes listed last. The number and percent of crashes by severity are listed for each category (see footnote for the exception of "restraint deficient"). This enables an easy comparison between the various crash types. It is important to realize that the categories of Table 1 are not mutually exclusive. However, since this is true in all of the

categories, these numbers serve to give the relative criticality of the particular categories that most often are the targets for funding or other resource allocations.

Table 1: Top Fatality Casues Alabama CY2018 Data

Crash Type (Causal Driver)	Fatal Number	Fatal %	Injuries	Injury %	PDO No.	PDO %	Total
Seat Belt Restraint Fault*	372	3.67%	4,073	40.14%	5,703	56.20%	10,148
Speed Involved	199	1.94%	3,259	31.85%	6,774	66.20%	10,232
ID/DUI All Substances	169	3.05%	2,135	38.59%	3,228	58.35%	5,532
Hit Obstacle on Roadside	124	1.87%	2,126	32.14%	4,365	65.99%	6,615
Ped., Bicycle, School Bus	117	7.04%	939	56.53%	605	36.42%	1,661
Fail to Yield or Ran (All)	114	0.37%	7,676	24.92%	23,010	74.71%	30,800
Mature (65 or Older) Causal	112	0.75%	3,249	21.76%	11,567	77.49%	14,928
Pedestrian Involved	106	13.97%	621	81.82%	32	4.22%	759
License Deficiency Causal	103	1.59%	2,018	31.22%	4,342	67.18%	6,463

Wrong Way Items	99	2.10%	1042	22.06%	3,582	75.84%	4,723
Youth (16-20) Causal Driver	86	0.37%	5,110	21.91%	18,129	77.72%	23,325
Motorcycle Involved	76	4.93%	1,065	69.02%	402	26.05%	1,543
Aggressive Operation	70	2.44%	856	29.89%	1,938	67.67%	2,864
Distracted Driving	43	0.29%	3208	21.93%	11,380	77.78%	14,631
Drowsy Driving	38	1.05%	1383	38.04%	2,215	60.92%	3,636
Large Truck Involved	36	0.52%	1,432	20.49%	5521	79.00%	6,989
Utility Pole	29	1.15%	877	34.90%	1,607	63.95%	2,513
Work Zone Related	27	0.72%	770	20.50%	2,959	78.78%	3,756
Vehicle Defects – All	12	0.36%	690	20.70%	2,631	78.94%	3,333
Vision Obscured	10	0.84%	320	26.87%	861	72.29%	1,191
Bicycle	9	3.53%	206	80.78%	40	15.69%	255
Railroad Trains	4	7.69%	23	44.23%	25	48.08%	52

Child Restraint Fault*	4	0.84%	207	43.49%	265	55.67%	476
Roadway Defects – All	3	2.34%	28	21.88%	97	75.78%	128
School Bus Involved	2	0.31%	112	17.31%	533	82.38%	647

* All categories list number of crashes except for the “Seat Belt Restraint Fault” and “Child Restraint Fault” categories. The restraint categories cannot accurately be measured by number of crashes so they list number of unrestrained persons for each severity classification.

The comparison of gross fatality and injury counts is merely a first step in the analytical process to find optimal allocations of resources among programs. Obtaining this first-cut perspective is essential for intelligent decision-making. Once the high-level decisions are made regarding which of the crash types will be addressed, further analyses must be performed to define countermeasures and improve their implementation. The severity classification in Table 1 also helps in this regard. For example, it might be noticed that the relative severity percentage of pedestrian, bicycle, motorcycle and railroad crashes are significantly higher than the other categories, as is true for the top three categories as well. This is an important aspect to be considered when the ultimate goal is reducing deaths.

Deployment of Resources

The effective allocation of resources will lead to an increased reduction in the number of hotspots within the next year on both a statewide level and within each individual region. That is, given that the total number of crashes remains relatively stable, the concentration of efforts at the hotspots will reduce crashes at those locations so that they may no longer be defined as hotspots in the following year. Ideally, it would be the goal to eliminate hotspots defined by the previous year’s criteria altogether. With this goal in mind, funding is determined for each region based on the percentage of hotspots in that region. There is also a consideration of the percentage of alcohol, restraint, and speed crash issues that are present within each region. Federal funds distributed by the AOHS are used to focus completely on the high crash areas within each region.

Law enforcement agencies use saturation patrols, line patrols, checkpoints, and regular patrol in order for the E-BE projects to be effective. The enforcement activities and techniques that are used include:

141. Conduct four local hotspot Evidence-Based Enforcement (E-BE) projects, one within each of the CTSP regions.

142. Conduct a statewide E-BE project in conjunction with the Alabama Law Enforcement Agency (ALEA).
143. Continue to require the CTSP Coordinators to conduct selective enforcement efforts that focus their plans on hotspot locations identified by the data analyses provided for their respective regions.
144. Participate in the national "Click It or Ticket" Campaign on the statewide level.
145. Conduct a statewide "Drive Sober or Get Pulled Over" Campaign in conjunction with the national campaign.
146. Conduct sustained E-BE for impaired driving, speeding, and seat belts throughout the year.

The enforcement efforts are accompanied by a PI&E campaigns that incorporate advertising, bonus spots, website links, and support of government agencies, local coalitions and school officials in an effort that will impact restraint usage. This part of the campaign consists of:

147. Development of marketing approach based on Nielsen and Arbitron ratings and targeted primarily towards the 18-34 male age group.
148. Placement of paid ads on broadcast television, cable television, digital ads, and radio in addition to public service spots. Paid advertising will be placed primarily in the five largest media markets.
149. Management of public relations efforts including press releases and special media events to stimulate media coverage and alert the public to the campaign.
150. In addition to the paid and free media, the AOHS website will have updated information including ads, articles and other information pertaining to the seat belt campaigns.
151. Each CTSP/LEL Coordinator will be responsible for generating sustained earned media in their area of the state throughout the year. The CTSP/LEL Coordinators are also responsible for developing press releases and conducting press events that are specifically targeted to their regions.

Effectiveness Monitoring

Process of Continuous Follow-up and Adjustment of the Plan. AOHS monitors subgrantee activity reports monthly to determine if adjustments are needed for their plans. When activity reports are received, they are assessed against program goals and expectations. This results programs being continuously evaluated and the necessary adjustments being made. A monthly follow-up is conducted with agencies to address any lack of performance issues or activities. Adjustments are made to the HSP annually based on the problem identification.

High-visibility enforcement (HVE) strategies

Planned HVE strategies to support national mobilizations:

Countermeasure Strategy
High Visibility Enforcement
High Visibility Enforcement
Short-term, High Visibility Seat Belt Law Enforcement

HVE planned activities that demonstrate the State's support and participation in the National HVE mobilizations to reduce alcohol-impaired or drug impaired operation of motor vehicles and increase use of seat belts by occupants of motor vehicles:

Unique Identifier	Planned Activity Name
M1HVE-20-OP-M1	Click It or Ticket High Visibility Enforcement Campaign
M5HVE-20-DS-M5	Drive Sober or Get Pulled Over High Visibility Enforcement Campaign
M5HVE-20-ID-M5	Impaired Driving - High Visibility Enforcement Campaign
PT-20-FP-PT	Evidence-Based Traffic Safety Enforcement Program

405(b) Occupant protection grant

Occupant protection plan

State occupant protection program area plan that identifies the safety problems to be addressed, performance measures and targets, and the countermeasure strategies and planned activities the State will implement to address those problems:

Program Area Name
Occupant Protection (Adult and Child Passenger Safety)

Participation in Click-it-or-Ticket (CIOT) national mobilization

Agencies planning to participate in CIOT:

Agency
ABBEVILLE POLICE DEPT
Alabama Law Enforcement Agency
ALEXANDER CITY POLICE DEPT 911
ANDALUSIA POLICE DEPT
ARDMORE POLICE DEPT
ASHFORD POLICE DEPT
ASHLAND POLICE DEPT
ASHVILLE POLICE DEPT
ATHENS POLICE DEPT
AUTAUGA CO SHERIFFS OFFICE
BALDWIN CO SHERIFFS DEPT
BAYOU LA BATRE POLICE DEPT
BESSEMER POLICE DEPT
BIRMINGHAM POLICE DEPT
CALERA POLICE DEPT
CAMDEN POLICE DEPT
CENTREVILLE POLICE DEPT

CHICKASAW POLICE DEPT
CHILTON CO SHERIFFS DEPT
COFFEE CO SHERIFFS DEPT
COFFEEVILLE POLICE DEPT
COLUMBIANA POLICE DEPT
COVINGTON CO SHERIFFS DEPT
CRENSHAW CO SHERIFFS DEPT
CULLMAN POLICE DEPT
DALEVILLE POLICE DEPT
DECATUR POLICE DEPT
DEMOPOLIS PD (MARENGO CO E911)
DOTHAN POLICE DEPT
ELBA POLICE DEPT
ELBERTA POLICE DEPT
ENTERPRISE POLICE DEPT
ESCAMBIA CO SHERIFFS DEPT
EXCEL POLICE DEPT
FALKVILLE POLICE DEPT
FLOMATON POLICE DEPT
FLORALA POLICE DEPT
FLORENCE POLICE DEPT
FOLEY POLICE DEPT
GENEVA POLICE DEPT
GEORGIANA POLICE DEPT
GLENCOE POLICE DEPT
GREENE CO SHERIFFS DEPT
GROVE HILL POLICE DEPT
GUIN POLICE DEPT
GURLEY POLICE DEPT

HALEYVILLE POLICE DEPT
HAMILTON POLICE DEPT
HARTFORD POLICE DEPT
HEADLAND POLICE DEPT
HEFLIN POLICE DEPT
HENRY CO SHERIFFS DEPT
HILLSBORO POLICE DEPT
HOUSTON CO SHERIFFS DEPT
HUEYTOWN POLICE DEPT
HUNTSVILLE POLICE DEPT
JACKSON CO SHERIFFS DEPT
JACKSON POLICE DEPT
JEMISON POLICE DEPT
KILLEN POLICE DEPT
LAKE VIEW POLICE DEPT
LINDEN POLICE DEPT
LITTLEVILLE POLICE DEPT
LUVERNE POLICE DEPT
MACON CO SHERIFFS DEPT
MADISON CO SHERIFFS DEPT
MOBILE CO SHERIFFS DEPT
MOBILE PD
MONROE CO SHERIFFS DEPT
MONTEVALLO POLICE DEPT
MONTGOMERY CO SHERIFFS DEPT
MONTGOMERY PD COMMUNICATIONS
MORGAN COUNTY SHERIFF OFFICE
MOULTON POLICE DEPT
MUSCLE SHOALS POLICE DEPT

NORTHPORT POLICE DEPT
OPP POLICE DEPT
OZARK POLICE DEPT
PRATTVILLE POLICE DEPT E911
RAINBOW CITY POLICE DEPT
REPTON POLICE DEPT
ROGERSVILLE POLICE DEPT
RUSSELL CO SHERIFFS DEPT
RUSSELLVILLE POLICE DEPT
SARALAND POLICE DEPT
SECTION POLICE DEPT
SELMA POLICE DEPT
SLOCOMB POLICE DEPT
SOUTHSIDE POLICE DEPT
SPRINGVILLE POLICE DEPT
ST CLAIR COUNTY SHERIFF OFFICE
ST FLORIAN POLICE DEPT
TARRANT POLICE DEPT
THOMASVILLE POLICE DEPT
TOWN CREEK POLICE DEPT
TRINITY POLICE DEPT
TROY POLICE DEPT
TUSCALOOSA CO SHERIFFS DEPT
WALKER CO SHERIFFS DEPT
WINFIELD POLICE DEPT

Description of the State's planned participation in the Click-it-or-Ticket national mobilization:

[ALABAMA - Planned Participation in Click-it-or-Ticket](#)

Alabama continues to steadily improve its seat belt and child restraint use rates that experienced a major improvement upon passing its Primary Seat belt Law in 1999. As part of the cooperative

process with NHTSA, an Evidence-Based Enforcement Program (E-BEP) called “Click It or Ticket” (CIOT) is run on an annual basis in April, May and June of each year (see schedule below). The following summarizes the CIOT effort:

- As part of the nationwide initiative coordinated by NHTSA to increase seat belt usage, the State will conduct an aggressive “Click It or Ticket” (CIOT) campaign. This is a High Visibility Paid Media campaign that centers on the CIOT theme. Because this has been a highly successful program in the past several years, AOHS will continue to lend its full support to the program in the coming year.
- In addition and complementary to the media campaign, a statewide CIOT High Visibility Enforcement campaign will be conducted for a three week period. The enforcement program will involve members from the Municipal Law Enforcement Agencies, County Sheriffs and State Highway Patrol (Alabama Law Enforcement Agency).
- Further upkeep of the CIOT effort will be supported to conduct surveys, perform analyses, and verify certification. As part of this effort:
 - o The University of Alabama Center for Advanced Public Safety (UA-CAPS) will conduct pre and post surveys for seat belt programs and evaluate several types of survey data regarding seat belt and child restraint usage rates as part of the CIOT campaign.
 - o The program will consist of waves of surveys, enforcement and media blitzes, carefully scheduled to maximize public understanding of restraint use.
 - o UA-CAPS’ role will be to: (1) receive and scientifically analyze data obtained (2) collect reports on the other components of the project (3) obtain signed certification page and (4) produce a comprehensive final report covering all aspects of the campaign.
- The evidence-based enforcement part of the CIOT program will involve multiple agencies and organizations that will participate under the leadership of AOHS.
- Waves of public education and enforcement will be conducted, working toward the single goal of increasing proper restraint use for both children and adults to improve highway safety.
- In particular, UA-CAPS will support ADECA/LETS in providing the following services:
 - o Contracting out the performance of the annual pre and post observational survey of vehicle belt usage and child restraint usage throughout Alabama according to the new NHTSA approved Sampling, Data Collection and Estimation Plan;
 - o Performing an evaluation of the program results using scientific analyses of baseline observations before the Special Traffic Enforcement Program (STEP) and post observations after it is completed and calculate the official seat belt usage rate for the State;
 - o Collecting results from all the various involved parties for their activities;
 - o Performing analyses of data generated through telephone based polls, media campaign data and enforcement data;

- o Compiling the project report for “Click It or Ticket” ;
- o Contracting out the performance of the child restraint observational survey;
- o Analyzing survey data and computing child seat belt usage rate for State; The listing of general activities to be conducted during the STEP and the proposed schedule are shown below:

Weeks Dates Activities

1-2 April 22-May 5 Statewide Observational Survey (Baseline)*

3-8 May 6-June 13 Earned Media for CIOT

4-5 May 11-May 30 Paid media for CIOT

5-6 May 18-May 30 Enforcement for CIOT

7-8 May 30- June 13 Statewide Observational and Telephone Surveys* . * Activities that involve data collection and analysis This section will continue by presenting the media plan, followed by the plan for the CIOT evaluation. 8.5.3.2 Media Plan for CIOT The "Click it or Ticket" statewide multimedia campaign will be aimed at increasing seat belt usage on Alabama's highways in the most effective ways. The campaign will incorporate advertising, bonus spots, website links, and support of government agencies, local coalitions and school officials in an effort that will impact restraint usage. The campaign will consist of:

- Development of the "Click It or Ticket" marketing approach based on Nielsen and Arbitron ratings and targeted primarily towards the 18-34 male age group.
- Placement of paid "Click It or Ticket" ads on broadcast television, cable television, and radio in addition to public service spots. Paid advertising will be placed primarily in the five largest media markets.
- Management of public relations efforts including press releases and special media events to stimulate media coverage and alert the public to the "Click It or Ticket" campaign.
- In addition to the paid and free media, the Office of Highway Safety website will have updated information including ads, articles and other information pertaining to the seat belt campaigns.
- Each CTSP/LEL Coordinator will be responsible for generating sustained earned media in their area of the state throughout the year. The CTSP/LEL Coordinators are also responsible for developing press releases and conducting press events that are specifically targeted to their regions. The CIOT Media Campaign will include placement of approved, paid CIOT programming on broadcast and cable TV, and radio spots during the appropriate time frame, and negotiations will be conducted to maximize the earned (free) media as well. These media efforts, including commercials, will supplement law enforcement agencies statewide as they conduct a zero tolerance enforcement of seat belt laws. Further, electronic billboards, digital music streaming websites and other platforms will be employed to reach the target audiences aimed at yielding increases in seat belt and child restraint use. The following summarizes the anticipated paid media campaign that will be performed: Broadcast Television The broadcast television buys

will focus on programming in prime times: early morning (M-F, 7A-9A) and evenings (M-F, 5P-Midnight). Selected weekend day parts, especially sporting events, will also be approved if the media programming would appeal to the target group. Cable Television The large number of cable networks in Alabama can be effective in building frequency for the male 18-34 target market. The buys will focus on the following day parts: early morning (M-F, 7A-9A) and evenings (M-F, 5P-Midnight) with selected weekend day parts, especially sporting events. Paid scheduling will be placed for networks that cater to males in our target, such as CNBC, ESPN, Fox News and Fox Sports, CNN, etc. Radio The campaign will target that same key at-risk group, 18-34 year olds, particularly males. The buy will focus on the following day parts: morning drive (M-F, 7A-9A), midday (M-F, 11A-1P), afternoon (M-F, 4P-7P), evenings (M-F, 7P-Midnight). Selected weekend day parts will be considered as well. Out of Home Electronic billboards will be leased in major markets where space is available. Several designs will be tagged for Alabama's use to correspond to and reinforce the video commercial. Lamar, Link and Beam electronic billboards were designed and placed in the twenty-six (26) major media market sites providing coverage in Birmingham, Mobile, Montgomery/Wetumpka, Huntsville and Auburn/Opelika. Digital Media: Digital media is a rapidly evolving platform in media consumption. For the CIOT campaign, ads will be placed in a variety of digital sites such as Facebook, YouTube and Bleacher Report; ads are also planned for placement on streaming services such as Pandora and Spotify. 8.5.3.3 CIOT Evaluation This project will be evaluated using methods and procedures approved by NHTSA. FY 2020 will be the eighth year to use the new survey plan that is documented in a report entitled "Alabama Observational Survey Plan for Occupant Restraint Use – 2013," and the details of that plan will not be repeated here. This data collection and estimation plan is based on fatality rates rather than population as was done previously. The Uniform Criteria 1340.12 requires states to re-select their observation sites no less than once every five years. AOHS submitted the proposed new sites for surveys in 2018 and received approval from NHTSA. UA-CAPS will manage the process for the observational surveys using the new sites, the phone survey evaluation of the media campaign, and be involved in evaluation and report generation portions of the project. Coordination between the involved agencies and consultants participating in the project will be the responsibility of UA-CAPS. While data observation, collection and processing will be in accordance with NHTSA-approved techniques, there are still many operational decisions that will require UA-CAPS involvement under the oversight of AOHS. UA-CAPS will: (1) stay in close contact during the design of data collection forms and procedures, (2) help ensure timely and accurate data collection, and (3) help ensure that data are received and preliminary analyses are performed in a timely manner. In-depth evaluation will be accomplished by both basic phone and observational surveys. Phone surveys will be conducted throughout the state with the goal of measuring changes in public awareness and attitude. This will be based upon statewide telephone surveys. The target of the observational surveys will be the measurement of proper restraint use by drivers and front seat outboard passengers. For 2020, the surveys will be conducted at a total of 350 sites in Alabama counties : Autauga, Baldwin, Blount, Calhoun, Chambers, Cherokee, Chilton, Clarke, Coffee, Colbert, Conecuh, Covington, Cullman, Dale, Dallas, De Kalb, Elmore, Escambia, Etowah, Houston, Jackson, Jefferson, Lauderdale, Lawrence, Lee, Limestone, Lowndes, Macon, Madison, Marengo, Marshall, Mobile, Montgomery, Morgan, Russell, Shelby, St. Clair,

Talladega, Tallapoosa, Tuscaloosa, Walker. With regard to the observational surveys, UA-CAPS will:

- Contract with a highly qualified vendor to recruit and train the Observational Surveyors,
- Assign new NHTSA approved observation locations and dates to the Surveyors,
- Work with the survey vendor to cull out any unusable observation sites from the new list and replace with alternates as they visit them,
- Oversee the vendor in the conduct of three observational surveys, and
- Collect and process the raw data produced by the Surveyors. In conducting the surveys and evaluation, UA-CAPS will require the assistance of other agencies and organizations, as follows:
 - The Auburn University Media Group will:
 - o Implement the media portion of the campaign;
 - o Contract with another professional group to produce and/or place ads if that is found to be most expedient;
 - o Determine where and when the ads are run; this will include the avenues of TV, cable, radio, internet and electronic billboards;
 - o Possibly produce educational brochures for the project;
 - o Submit reports to ADECA-LETS; and
 - o Submit reports to UA-CAPS for inclusion in the overall final report for the project.
 - ADECA/LETS will:
 - o Provide funding for the project;
 - o Serve as the host agency for the effort, providing ongoing oversight coordination, and guidance as needed;
 - o Coordinate the enforcement campaign and provide summary reports to UA-CAPS for inclusion in final report; and
 - o Assist UA-CAPS, if needed, in obtaining data from Surveyor observations, consultant phone polls, and consultant questionnaires.
 - A highly qualified company will be contracted by UA-CAPS to perform the phone survey to evaluate the media effectiveness of the “Click It or Ticket” program. This part of the project will involve:
 - o Design and prepare the telephone questionnaire instrument (with guidance from LETS and UA-CAPS);
 - o Conduct a post survey;

- o Encode and analyze the data, and
- o Deliver the data and a preliminary analysis of the data to UA-CAPS in a timely manner. To summarize, restraint use will be evaluated in two primary ways: (1) by direct observation of vehicles, based upon a carefully designed sampling technique, and (2) through a telephone survey. Before and after seat belt usage rates will be evaluated by direct observation, and after rates will be evaluated through the telephone surveys. A final report will be produced by UA-CAPS that will describe the results of the current year evaluation efforts and summarize past year's evaluation efforts to hopefully show continual improvements being made by participating in the campaigns. The Problem Identification Results above, detail the procedures and results obtained from the hotspot analyses. By using actual crash data in which it was found that occupants (including drivers) were not properly restrained, resources can be focused on the best possible place to perform the Evidence-Based Enforcement Programs

[List of Task for Participants & Organizations](#)

Click or tap here to enter text.

[Child restraint inspection stations](#)

Countermeasure strategies demonstrating an active network of child passenger safety inspection stations and/or inspection events:

Countermeasure Strategy
Child Restraint System Inspection Station(s)

Planned activities demonstrating an active network of child passenger safety inspection stations and/or inspection events:

Unique Identifier	Planned Activity Name
M1PE-20-M1	Child Passenger Safety Training Program

Total number of planned inspection stations and/or events in the State.

Planned inspection stations and/or events: **42**

Total number of planned inspection stations and/or events in the State serving each of the following population categories: urban, rural, and at-risk:

Populations served - urban: 29

Populations served - rural: 13

Populations served - at risk: 12

CERTIFICATION: The inspection stations/events are staffed with at least one current nationally Certified Child Passenger Safety Technician.

Child passenger safety technicians

Countermeasure strategies for recruiting, training and maintaining a sufficient number of child passenger safety technicians:

Countermeasure Strategy
Child Restraint System Inspection Station(s)

Planned activities for recruiting, training and maintaining a sufficient number of child passenger safety technicians:

Unique Identifier	Planned Activity Name
M1PE-20-M1	Child Passenger Safety Training Program

Estimate of the total number of classes and the estimated total number of technicians to be trained in the upcoming fiscal year to ensure coverage of child passenger safety inspection stations and inspection events by nationally Certified Child Passenger Safety Technicians.

Estimated total number of classes: 3

Estimated total number of technicians: 60

Maintenance of effort

ASSURANCE: The lead State agency responsible for occupant protection programs shall maintain its aggregate expenditures for occupant protection programs at or above the level of such expenditures in fiscal year 2014 and 2015.

405(c) State traffic safety information system improvements grant

Traffic records coordinating committee (TRCC)

Meeting dates of the TRCC during the 12 months immediately preceding the application due date:

Meeting Date
11/14/2018
2/13/2019
4/11/2019

Name and title of the State's Traffic Records Coordinator:

Name of State's Traffic Records Coordinator: **Mr. Terry Henderson**

Title of State's Traffic Records Coordinator: **Director of East Central Highway Safety Office**

TRCC members by name, title, home organization and the core safety database represented:

[List of TRCC members](#)

TRAFFIC RECORDS COORDINATING COMMITTEE (TRCC) MEMBERS 2019

Mr. Terry Henderson, TRCC Coordinator

Director

East Central Alabama Highway Safety Office

Opelika, AL

Member Function: Highway Safety Professional

Mr. Bill Babington, Governor's Highway Safety Representative

Division Chief

Law Enforcement/Traffic Safety Division

Alabama Dept. of Economic and Community Affairs

Montgomery, AL

Member Function: Highway Safety Professional

Mr. Waymon Benifield, Safety Administrator

Design Bureau, Traffic Eng. Division, Safety Section
Alabama Department of Transportation
Montgomery, AL
Member Function: Highway Safety and Infrastructure
Core System: Roadway

Mr. John-Michael Walker, State Safety Operations Engineer
Office of Safety Operations
Alabama Department of Transportation
Montgomery, AL
Member Function: Highway Safety and Infrastructure
Core System: Roadway

Captain Sue Capps, Acting Chief of Highway Patrol
Alabama Law Enforcement Agency
Montgomery, AL
Member Function: Law Enforcement
Core System: Crash

Chief Deena Pregno, Driver's License
Alabama Law Enforcement Agency
Montgomery, AL
Member Function: Driver Licensing
Core System: Driver

Dr. Scott Harris, Interim State Health Officer
Alabama Department of Public Health
Montgomery, AL

Member Function: Public Health

Core System: Emergency medical services/injury surveillance system

Mr. Stephen Wilson, Director

Division of Emergency Medical Services

Alabama Department of Public Health

Montgomery, AL

Member Function: Emergency Medical Services, Injury Control

Core System: Emergency medical services/injury surveillance system

Dr. Laura Myers, Director

Center for Advanced Public Safety (CAPS)

The University of Alabama

Tuscaloosa, AL

Member Function: Collectors and Users of Traffic Records

Mr. Jay Starling, Director

Motor Vehicle Division

Department of Revenue

Member Function: Motor Vehicle Registration

Core System: Vehicle

Mr. Fred Lilly, Chief Technology Officer

Administrative Office of Courts

Montgomery, AL

Member Function: Adjudication

Core System: Citation and Adjudication

Mr. Kenny Price, Division Administrator

FMCSA

Montgomery, AL

Member Function: Motor Carrier

Core System: Vehicle (Commercial)

INVITED GUESTS that regularly attend:

Terrance Parker

Region 4 Deputy Administrator – Regional Program Manager

NHTSA

Member Function: Highway Safety Professional

Mr. Bill Whatley, Public Safety Unit Manager

Law Enforcement/Traffic Safety Division

Alabama Dept. of Economic and Community Affairs

Montgomery, AL

Member Function: Highway Safety Professional

Ms. Lynne Wilman, Highway Traffic Safety Program Supervisor

Law Enforcement/Traffic Safety Division

Alabama Dept. of Economic and Community Affairs

Montgomery, AL

Member Function: Highway Safety Professional

Sam Meriwether, Highway Traffic Safety Program Manager

Law Enforcement/Traffic Safety Division

Alabama Dept. of Economic and Community Affairs

Montgomery, AL

Member Function: Highway Safety Professional

Daniel Urquhart, IT Director

Alabama Law Enforcement Agency

Montgomery, AL

Member Function: Law Enforcement IT Systems

Linda Guin, Safety Engineer

Federal Highway Administration

Montgomery, AL

Member Function: Highway Infrastructure

Lian Li, Planner

Federal Highway Administration

Montgomery, AL

Member Function: Highway Infrastructure (HPMS contact, involved in MIRE)

Keisha Thomas

Administrative Office of Courts

Montgomery, AL

Member Function: Adjudication

Eric Marable

Design Bureau, Traffic Eng. Division, Safety Section

Alabama Department of Transportation

Montgomery, AL

Member Function: Highway Safety and Infrastructure

Dr. David Brown, Research Affiliate
Center for Advanced Public Safety (CAPS)
The University of Alabama
Tuscaloosa, AL
Member Function: Collectors and Users of Traffic Records

Rhonda Stricklin, Associate Director
Center for Advanced Public Safety (CAPS)
The University of Alabama
Tuscaloosa, AL
Member Function: Collectors and Users of Traffic Records

Randy Smith, Associate Professor of Computer Science
The University of Alabama
Center for Advanced Public Safety (CAPS)
Tuscaloosa, AL
Member Function: Collectors and Users of Traffic Records

Jeremy Pate, Project Manager
Center for Advanced Public Safety (CAPS)
The University of Alabama
Tuscaloosa, AL
Member Function: Collectors and Users of Traffic Records

Jesse Norris, Senior Research Analyst
Center for Advanced Public Safety (CAPS)
The University of Alabama
Tuscaloosa, AL

Member Function: Collectors and Users of Traffic Records

The above listed membership annually votes and approves the membership of the TRCC, the TRCC coordinator, any change to the State's multi-year Strategic Plan required, and performance measures to be used to demonstrate quantitative progress in the accuracy, completeness, timeliness, uniformity, accessibility or integration of a core highway safety database.

Traffic Records System Assessment

5.0 Traffic Records Assessment Recommendations

5.1 Crash Recommendations

Recommendation: *Improve the applicable guidelines for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Recommendation: *Improve the data dictionary for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Recommendation: *Improve the procedures/process flows for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Recommendation: *Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Recommendation: *Improve the data quality control program for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

5.2 Vehicle Recommendations

Recommendation: *Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

5.3 Driver Recommendations

Recommendation: *Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

5.4 Roadway Recommendations

Recommendation: *Improve the data dictionary for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Recommendation: *Improve the procedures/ process flows for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Recommendation: *Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

5.5 Citation/Adjudication Recommendations

Recommendation: *Improve the applicable guidelines for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Recommendation: *Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Recommendation: *Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

5.6 EMS / Injury Surveillance Recommendations

Recommendation: *Improve the interfaces with the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Recommendation: *Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Traffic Records for Measurable Progress

6.0 Traffic Records Assessment (TRA) Responses that will be addressed in FY2020

These responses were not intended to repeat the content of the Traffic Records Information Systems (TSIS) Strategic Plan (SP). For this reason a brief response is given here for each recommendation that in all cases refers the reader to the SP. The NHTSA *Traffic Records Program Assessment Advisory* will be referenced in the responses below as *the Advisory*. In each case the recommendation from the TRA will be followed by the State's response.

6.1 Crash Recommendations

Recommendation: *Improve the applicable guidelines for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.2, Project 16 for details. The crash component manager will set up a taskforce to develop and implement improved guidelines for the Crash data system to reflect best practices of the advisory.

Recommendation: *Improve the data dictionary for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.2, Project 17 for details. Currently no formal data dictionary exists for the raw crash data. This project calls for the development of a comprehensive data dictionary for raw crash data. It will also include methods for tracking all datasets produced from the crash data, including those that are integrated with data from other modules.

Recommendation: *Improve the procedures/process flows for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.2, Project 18 for details. A comprehensive systems analysis will be performed for the Crash data system that will consider all procedures and process flows within this component using the guidelines and data dictionary developments of projects 16 and 17. These will be compared against the recommendations given in the Advisory and remedial action will be taken to correct any deficiencies.

Recommendation: *Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.2, Project 18 for details. The systems analysis study that is discussed in this project for upgrading the procedures and process flows for the crash data system will also cover interface improvements as they relate to other modules.

6.2 Vehicle Recommendations

Recommendation: *Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.1, Project 1 for details. This is a comprehensive project that covers all of the TSIS components. Each component coordinator will appoint a quality control manager to evaluate the quality of all data being received, generated and distributed by that component. In the absence of such an appointment, the component coordinator will assume the responsibilities.

6.3 Driver Recommendations

Recommendation: *Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.1, Project 1 for details. This is a comprehensive project that covers all of the TSIS components. Each component coordinator will appoint a quality control manager to evaluate the quality of all data being received, generated and distributed by that component. In the absence of such an appointment, the component coordinator will assume the responsibilities.

6.4 Roadway Recommendations

Recommendation: *Improve the data dictionary for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.5, Projects 6 and 7 for details. Currently no formal data dictionary exists for the raw roadway data elements. This project calls for the development of a comprehensive data dictionary for these data, including but not limited to the MIRE data elements.

6.5 Citation/Adjudication Recommendations

Recommendation: *Improve the applicable guidelines for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.6, Project 7 for details. The Citation/Adjudication component manager will set up a taskforce to perform an overall review of this component for the purpose of developing and implementing improved guidelines for that data system to reflect best practices of the advisory. This project will also address the next recommendation

Recommendation: *Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.6, Project 7 for details. The systems analysis study that is discussed in this project for upgrading the procedures and process flows for the Citation/Adjudication data system will be enlarged to address the Advisory recommendations that cover interface improvements both internally and as they relate to other modules.

6.6 EMS / Injury Surveillance Recommendations

Recommendation: *Improve the interfaces with the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.7, Project 8 for details. A task force will be appointed by the manager of this component with the charge of reviewing the systems interfaces in conjunction with the Advisory. Recommendations will be expected to include the prioritization of the large number of potential interfaces that might exist, with the goal of creating those interfaces that are most productive from a management and research perspective.

Traffic Records Supporting Non-Implemented Recommendations

7.0 Traffic Records Assessment (TRA) Responses to recommendations that will not be addressed in FY2020

These responses were not intended to repeat the content of the Traffic Records Information Systems (TSIS) Strategic Plan (SP). For this reason a brief response is given here for each recommendation that in all cases refers the reader to the SP. The NHTSA *Traffic Records Program Assessment Advisory* will be referenced in the responses below as *the Advisory*. In each case the recommendation from the TRA will be followed by the State's response.

7.1 Crash Recommendations

Recommendation: *Improve the data quality control program for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.1, Project 1 for details. This is a comprehensive project that covers all of the TSIS components. Each component coordinator will appoint a quality control manager to evaluate the quality of all data being received, generated and distributed by that component. In the absence of such an appointment, the component coordinator will assume the responsibilities.

7.2 Vehicle Recommendations

Recommendation: *Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.1, Project 1 for details. This is a comprehensive project that covers all of the TSIS components. Each component coordinator will appoint a quality control manager to evaluate the quality of all data being received, generated and distributed by that component. In the absence of such an appointment, the component coordinator will assume the responsibilities.

7.3 Driver Recommendations

Recommendation: *Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.1, Project 1 for details. This is a comprehensive project that covers all of the TSIS components. Each component coordinator will appoint a quality control manager to evaluate the quality of all data being received, generated and distributed by that component. In the absence of such an appointment, the component coordinator will assume the responsibilities.

7.4 Roadway Recommendations

Recommendation: *Improve the procedures/ process flows for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.5 Project 8 for details. A comprehensive systems analysis will be performed for the roadway data system that will consider all elements within this component using the data dictionary elements that are developed in Projects 6 and 7. These will be compared against the recommendations given in the Advisory and remedial action will be taken to correct any deficiencies.

Recommendation: *Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.1, Project 1 for details. This is a comprehensive project that covers all of the TSIS components. Each component coordinator will appoint a quality control manager to evaluate the quality of all data being received, generated and distributed by that component. In the absence of such an appointment, the component coordinator will assume the responsibilities.

7.5 Citation/Adjudication Recommendations

Recommendation: *Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.1, Project 1 for details. This is a comprehensive project that covers all of the TSIS components. Each component coordinator will appoint a quality control manager to evaluate the quality of all data being received, generated and distributed by that component. In the absence of such an appointment, the component coordinator will assume the responsibilities.

7.6 EMS / Injury Surveillance Recommendations

Recommendation: *Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

Strategic Plan Response: See Section 4.2.1, Project 1 for details. This is a comprehensive project that covers all of the TSIS components. Each component coordinator will appoint a quality control manager to evaluate the quality of all data being received, generated and distributed by that component. In the absence of such an appointment, the component coordinator will assume the responsibilities.

Reason for not implementing the TRA Quality Control Recommendations for All Modules:

In reviewing the resources available to the state, the Traffic Records Coordinating Committee has determined that resources are not currently available for implementing the formal quality control recommendations made in the Traffic Records Assessment report for each and every module. This is not to say that there are not current efforts to maintain quality by all of the agencies involved in traffic records. These efforts have been ongoing for many years, and the quality of the products produced attest to their effectiveness. However, the Traffic Records Assessment recommendations required that specific personnel be assigned to these functions and that documentation be produced to demonstrate these formal efforts. Efforts will be made during FY2020 to plan for the best methods to address these recommendations, but the TRCC did not feel that resources on any current efforts should be sacrificed to this end.

Traffic Records for Model Performance Measures

4.3 TSIS Measurable Performance Indicators

A summary of the TSIS project goals in terms of measurable performance indicators is given below for each of the TSIS components. Each of the projects is listed under the particular TSIS component to which they relate (e.g., crash, vehicle, driver, etc.). In most cases IT projects only return their benefits when fully completed and deployed (e.g., a half-completed software development project generally does not produce any tangible benefits). There are some exceptions in data development projects, but in most cases the goals established would be effective once the envisioned project to satisfy it was totally completed.

The state would have to perform studies that cost well beyond the total Section 405c allocation to the state in order to establish the benchmarks and performance metrics to any degree of reliability. For this reason, the best estimates were used in many cases. In some cases the ongoing and proposed projects have the objective of establishing data or systems that currently do not exist, and therefore the current benchmark is zero. In other cases the benefits of the systems being developed will not be realized until these systems are deployed, and in these cases the metric is a degree of completion as opposed to some impact on the TSIS itself. Thus, to the extent possible the metrics that are recommended in NHTSA document **DOT HS 811 441 entitled "Model Performance Measures for State Traffic Records Systems"** were used as the basis for the performance metrics given below. In addition, the annual required Interim report

that the State submits to NHTSA uses the metrics that are specified in the **DOT HS 811 411** document.

4.3.1 Management Component Project Metrics

4.3.1.1 Quality Control Management Metrics

- Assignment of a quality control coordinator to each operational component.
- Within each component:
 1. Selection of items in need of quality improvement.
 2. Documentation of improvements made.

4.3.2 Crash Component Project Metrics

4.3.2.1 ADVANCE Upgrade

- Functioning ADVANCE portal with new technology upgrades in place.
- Stakeholder satisfaction measured by survey above 95%.

4.3.2.2 MapClick project.

- Increase the accuracy and completeness of the crash location entry for on-system (mileposted) locations from its current level of about 85% to at least 98%.
- For off-system segment locations, increase the accuracy from 0% to at least 98%. (This can be measured by the number of cases that contain a 99999 in the node field, indicating that the node entered was either invalid or unknown.)
- Reduce the invalid or unknown cases from its current value of approximately 20% of cases to less than 2% of cases.

4.3.2.3 eCrash upgrades and training

- Modify the eCrash data entry screens so that the data collected is over 90% MMUCC compliant.
- Reduce time to enter locations from an average of 15 minutes to less than one minute with consistent accuracy as described in Item 4.3.2.2.

4.3.2.4 CARE modifications and upgrades

- Give users greater intuitive access to crash data and the information in the crash database thereby increasing the number of queries that they can perform without assistance from its current estimate of 60% to over 80%.
- Increase the number of queries that users will make from an average of 20 queries per user to well over 50 queries per user per year.

4.3.2.5 CARE scripting and dashboard capabilities.

- Provide greater productivity in enabling users to save complex queries and reuse them, resulting in a 20% increase in the number of reports generated.
- Increase the accuracy of query responses by 30% since they will not have to be re-created periodically.

4.3.2.6 Upgrade CARE dashboard user interface

- Significant recognized improvements in the interface making it easier for users to get available information from the available datasets.
- Results of user survey of stakeholders.

4.3.2.7 Upgrade to the Crash Facts document.

- Increase in the consistency of information presented from year to year (with the introduction of eCrash data this consistency dropped to about 90%).
- Increase consistency to 100%, providing users the capability to compare figures from year to year.

4.3.2.8 Final mandate for use of eCrash.

- MMUCC compliance increase from 85% to over 95%.
- Increased consistency among all data elements through a systematic series of cross-tabulation checks; reduction of inconsistent data elements by 90%.
- Timeliness improvement from an average of about six weeks for current paper forms to be entered for the remaining paper forms to the eCrash delay of an average of less than 18 hours.

4.3.2.9 Special location type exception reports.

- Since the information being produced from these reports does not currently exist, there will be a 100% increase in information content from each type of exception report that will be created.

4.3.2.10 Unreported crash incident reporting.

- This project will create new data that do not currently exist since these data will generate information that cannot be derived from any current data source.
- At least 100 reports in the first prototype year.

4.3.2.11 Centralized (Enterprise) CARE

- Functioning CARE system that uses a central server to store all executables and all datasets.

4.3.2.12 Upgrade of the FOCIS system

- Demonstration of a functional advanced collision-diagram generation system that is more advanced than any currently in existence.

4.3.2.13 Coordinate-based hotspot capability

- Demonstration of a hotspot capability that is based totally on GIS coordinates and ON road code, independent of any linear reference system.
- Tested and verified system working as good if not better than the LRS hotspot systems.

4.3.2.14 Database Systems Management (DBSM)

- Progress in developing the DBSM will be evident from the ease of generating new reports once it is operational.
- It is not possible to specify other metrics at this point to measure its effectiveness in time savings and eliminating problems when it comes to changing the structure of variables that are used elsewhere in the system.

4.3.2.15 TZD research and education

- Assessment of the effectiveness is best measured by before and after surveys for the educational effort.
- Research is needed to design the PI&E efforts that will be most effective in preparing the general public for the major benefits expected from connected and autonomous vehicles, and to recognize that their flaws are temporary as the technology moves forward.

4.3.2.16 Guideline Improvement

- List of Advisory best practices as they relate to crash records.
- Documented cost and an expected benefit related to the implementation of each of the recommended best practices.
- Implementation and work plan for those projects that will be necessary to implement the most cost-beneficial items.
- Recommendations to the TSIS SP for review and approval by the TRCC.

4.3.2.17 Data Dictionary

- Comprehensive data dictionary for raw crash data that is consistent with industry standards for data dictionaries.
- Documented methods for tracking all datasets produced from the crash data, including those that are integrated with data from other modules.

4.3.2.18 Crash Module Systems Analysis

- Documentation of a complete systems analysis of the current crash module including both internal procedures and process flows as well as the integration with other modules.

- Preliminary list of anticipated current crash module deficiencies.
- Recommended remedial action to correct any deficiencies.
- List of potential projects that can be compared on a cost-benefit basis to recommend updates to the TRCC SP.

4.3.2.19 FARS Data Automation

- Upgraded FARS data entry to include all required FARS data elements.
- Addition of the following to enable ALDOT to meet federal requirements: (1) MPO boundary area, (2) RPO boundary area boundary, (3) FARS Highway Functional Classification, and (4) FARS National Highway System Classification.
- Updated CARE FARS system to process data from the most recent FARS updates.

4.3.3 *Vehicle Projects*

4.3.3.1 Registration file content and access update.

- Current systems upgraded to include the new data being made available by upgrades in the vehicle registration process.

4.3.3.2 ETAPS upgrade to ALTS.

- Conversion of ETAPS to ALTS completed, and the system is working totally under ALTS.
- Implementation verified to be 100% by all designated agents in all counties by the end of FY2020.

4.3.3.3 Integration of ALEA driver license and state identification databases

- Testing is completed to assure that there is full integration of the two databases such that anything in one is accessible to the other and vice versa, given that the same person exists in both databases.
- Prototype tested to verify the ability to scan the barcode to obtain the vehicle owner's information via a link to the driver's license number and the registration record.

4.3.3.4 Implementation of OVIS

- Full implementation of OVIS measured by the number of agencies using it with the goal of this being over 95% by the end of FY 2017.
- FY2019 progress included working with ALEA to provide access to the DOR online insurance verification system in order to administer the newly created law that allows ALEA to issue assessments to uninsured motorists who are involved in crashes.

4.3.3.5 Modernized IRP/IFTA systems

- Significantly improved user satisfaction with the interface.
- Ability for users to upload documents and to utilize the applications on a variety of modern electronic devices.
- Progress of this project in FY2019 included the implementation of: (1) a new commercial vehicle licensing system for IRP and IFTA licenses and taxes, and (2) a new commercial vehicle information exchange window (CVIEW) for use by DOR, ALEA, APSC and ALDOT.

4.3.3.6 Update and implementation of MVTRIP

- Upgrading of the MVTRIP system without loss of utility, to include a new upgraded dashboard that displays and performs analytics on the MVTRIP data.
- Compatibility with the most common technologies that are being applied in the field.

4.3.3.7 Print on demand registration receipt

- Final testing completed and complete print on demand registration receipt system fully operational.
- The print on demand process for registration receipts and validation decals is now being implemented; 100% implementation by the end of FY2019.
- Progress during FY2019 included the implementation of the print on demand process for Alabama special distinctive license plates.

4.3.3.8 Electronic vehicle registration receipts

- Final testing of the system that meets all requirements for producing and transmitting an electronic receipt to registrants' electronic wallets.

4.3.3.9 Fraud detection tool design and development

- Project taken over by ALEA.

4.3.3.10 Vehicle registration cards

- Improved accuracy of person and vehicle validation from its current value of approximately 90% to 98%.
- Successful prototype of barcodes on registration cards in several target beta test areas.
- Implement barcodes on registration cards statewide starting in July, 2020.

4.3.3.11 Vehicle data LETS integration

- Decrease the average time that it takes an officer in the field to obtain vehicle and insurance verification from the current average to less than five seconds.

4.3.3.12 Online Insurance Verification System (OVIS) updates

- Detect at least five areas where improvements can be made and develop them during the first year after project initiation.

- Regression tested improvements.

4.3.3.13 Effective TZD infrastructure.

- Documented interaction with TZD researchers resulting in the use of CARE and other tools and data to support TZD efforts.

4.3.3.14 Addition of the DL validation to populate the vehicle owner data in the title record.

- Fully functional Driver License (DL) number as required part of the title record.
- Ability to retrieve the registration record from the vehicle owner's driver's license number.
- Ability to pre-populate the title record with all available information on the drivers' license (e.g., name and address and all other vehicle owner information).

4.3.3.15 More frequent county uploads of title records

- Design and development of a virtual real-time system for updating LETS.
- Information is available to officers in the field at the point (no more than five minutes after) when the transaction occurs.

4.3.3.16 Electronic liens and titles (ELT)

- Completed requirements gathering phase for the production of current lien and title information electronically.
- Functioning lien and title information system.

4.3.3.17 Automated License Plate Readers (ALPR)

- Completed requirements gathering for system to support civil enforcement of registration violations through the use of automated license plate readers (ALPRs).
- Completed preliminary and detailed design.
- Functioning software to use ALPRs for enforcement of registration laws.

4.3.3.18 Electronic Credentialing (eCredential) program

- Completed requirements gathering for system to support electronic credentialing.
- Completed preliminary and detailed design.
- Functioning software to perform the electronic credentialing functions.

4.3.4. *Driver Component Projects*

4.3.4.1 DUI driver data intake and reporting system

- Law enforcement identification and apprehension of at least ten additional DUI offenders (per month) with outstanding warrants or court obligations.

4.3.4.2 MIDAS offender completion validation

- (Currently this capability does not exist.)
- The ability to identify for any defendant where s/he stands with regard to completing their sentence.
- The identification within the database of an increase of 30% additional existing offenders who have not completed their time of suspension or satisfied their alternative or traditional sanctions.

4.3.4.3 Traffic safety incident (ULTRA) data availability

- This system and thus the information that it would generate does not currently exist. This will result in the availability to law enforcement of selected incidents that relate to traffic safety (e.g., habitual drug use). The first prototype should support 50-100 queries per day.
- Documentation of the systems analysis necessary to create additional data requirements.

4.3.4.4 Information mining of the ULTRA data

- Functioning ETL for ULTRA.
- ULTRA datasets being processed by CARE.
- Resulting CARE outputs.

4.3.4.5 LETS upgrades for traffic safety

- (This capability does not currently exist.)
- The capability to detect hundreds of serial traffic violators per month based on an expected 50-100 queries per day

4.3.4.6 Mobile Officer Virtual Environment (MOVE) Upgrades

- Most of the additional capabilities that enable officers to complete forms in their vehicles will require upgrades to the current MOVE system. Since this is a supportive role, it can only be measured in terms of the other systems that it supports.
- At least ten new functions added to MOVE over the next five years, on average two per year.

4.3.5 Roadway Data Systems Projects

4.3.5.1 Improved data gathering/connectivity through eGIS

- Centerlines developed for all state roads completed by end of FY2017.

- Centerlines developed for at least 50% of county roads and city streets by the end of FY 2020.
- ALDOT-maintained location system (for all public roads) route network incorporated into crash locating tools for at least 95% of crash reports;
- ALDOT's "all public roads" route network expanded to 80% of all non-State maintained routes.
- Infrastructure and tools provided to 90% of local authorities (e.g., City, County, MPO, RPO).

4.3.5.2 Statewide roadway data inventory

- Accessibility: currently these data are widely distributed and not easily accessible for IHSDM/HSM implementation.
- Add data elements to an IHSDM/HSM warehouse to make 20% of these data elements accessible per year so that at the end of the five-year planning horizon 100% of the required data elements will be accessible.

4.3.5.3 IHSDM/HSM implementation project

- Improve the accuracy and the consistency of roadway modification benefit estimates by at least 50% over the planning horizon (e.g., if the accuracy is currently 80%, then a success would be in raising this accuracy to 90%, eliminating 50% of the deficiency).
- Improve the optimization process so that an additional benefit of ten lives per year can be saved through roadway improvement projects.

4.3.5.4 Roadway Issue Dispatch (RID) project

- The addition of ten RID reports per month routed to either ALDOT or the appropriate county or city engineer.

4.3.5.5 Roadway Improvement Safety Evaluation (RISE)

- Beta test at least five maintenance project corridors during the second year after project initiation.

4.3.5.6 MIRE creation for state routes

- Ongoing progress of 20% of the data elements functional per year after initiation of the project.
152. Comparable progress to incorporate the relevant state-collected MIRE data elements into the crash database and Crash reports.
153. MIRE data elements collected for 80% public routes not on the State maintained network.

154. Ongoing implemented training on MIRE data collection and reporting tools to local authorities (e.g., City, County, MPO, RPO).

4.3.5.7 Design and develop data dictionary for roadway data elements.

- Comprehensive data dictionary for raw roadway data elements that is consistent with industry standards for data dictionaries as well as federal requirements.
- Documented methods for tracking all datasets produced from the roadway data, including those that are integrated with data from other modules.

4.3.5.8 Systems analysis of roadway data elements.

- Documentation of complete systems analysis of the current roadway module, including both internal procedures and process flows.
- Documentation of the integration with other modules as well as the data elements developed in Project 7 above.
- Recommendations for all remedial actions to correct any deficiencies resulting from a comparison of existing procedures against the recommendations given in the Advisory.
- List of potential projects that can then be compared on a cost-benefit basis to recommend updates to the TRCC SP.

4.3.6 Citations and Adjudication Projects

4.3.6.1 Upgrades to eCite

- Reduce the average time of getting citation information into the database from several days to an average of less than one day.
- Increase the proportion of agencies on by at least 2% per year.

4.3.6.2 ALEA Motor Carrier Integration – FMCSA compliance

- From less than 50% current compliance to 100% compliance with Federal standards.

4.3.6.3 Citation adjudication technology

- For all eCite agencies, eliminate the need for paper tickets and officer swearing to the ticket in person at the courthouse.
- Reduce the time spent in printing to a few seconds
- Reduce the time spent swearing to tickets to a few minutes per day.

4.3.6.4 Municipal electronic disposition system

- Five beta test municipalities after the first year of the start of development.
- At least 20 municipalities using the system after the second year.

4.3.6.5 Completing of the eCite roll-out

- At least 95% of municipalities using eCite by the end of FY2021.

4.3.6.6 Citation and DUI Tracking System

- Number and percentage of defendants for which data are available; functional portal under MOVE enabling officers to make queries on particular individuals; administrative capability to check the status of citation and defendants.

4.3.6.7 Taskforce to develop and implement improved guidelines

- Documentation of an internal assessment as to which components are in compliance with the provisions of the Advisory and which are most in need of remediation.
- Documentation of a complete systems study of all current components within the citation/adjudication component, i.e., all systems that relate to either transactional or analytical systems and impact traffic safety.
- Documentation of an in-depth analytical study of the most critical modules and the recommendations for additional development of supporting projects to bring the system into closer conformance with the Advisory.
- Recommends to the TRCC any new projects that are required to this effect so that they can be integrated into the SP once approved.

4.3.7. *EMS-Medical Surveillance*

4.3.7.1 Complete and implement RESCUE

- Beta test of the RESCUE system completed by the end of the second year from project initiation. This objective has been accomplished.

4.3.7.2 Supporting software for RESCUE.

- Deployed operational support software; number of vendors who are using the supporting software and the support it is providing to RESCUE for effective operation.

4.3.7.3 Develop EMS version of MOVE

- This project has been cancelled due to deciding to go web-based with RESCUE.

4.3.7.4 Continued development of the First Responder Solution Technique (FIRST)

- All MOVE components developed and deployed in beta tests.
- Reduced transport time for beta areas.
- Reduced number of patients who need to be forwarded to more appropriate facilities in beta test areas.

4.3.7.5 EMS-Trauma data integration through CARE

- ETL developed and pilot datasets generated that contain integrated EMS and Trauma data that support all CARE analytical capabilities.

4.3.7.6 Medical database access/integration

- Documentation of the systems analysis study that contains recommendations as to the initial databases that can be integrated.

4.3.7.7 Model Inventory of Emergency Care Elements (MIECE) Repository

- Beta test of the MIECE data entry system completed by the end of the first year of project initiation.

4.3.7.8 Interface research task force (coordinated closely with item 4.3.8.3 below)

- Existence of an ongoing taskforce.
- Documented review of the systems interfaces in comparison with the Advisory.
- Recommendations for all interfaces that are not in accord with the Advisory.
- Prioritization of the large number of potential interfaces that exist, with the goal of creating or improving those interfaces that are most productive from a management and research perspective.

4.3.8. *Integration Projects*

4.3.8.1 TSIS/TRCC Coordination

- The presence of a coordinator and staff to perform all necessary coordination functions.

4.3.8.2 Development of DELTA

- Documented design of DELTA to take in the practical aspects of a multi-agency approach toward data lifecycle coordination.
- Functioning prototype system for a select subset of the total TSIS in order to initiate its full evolution.

4.3.8.3 Crash-Injury Data Integration (coordinated closely with item 4.3.7.8 above)

- Definition and establishment of two (or more) additional databases needed to prove the concept, e.g., eCrash and RESCUE data.
- Functioning CARE dataset that proves the concept of multiple database information generation using the ETL approach for integration.
- Functional linkage between the Electronic Patient Care Report (ePCR), currently produced by RESCUE, and the crash report, currently produced by eCrash.
- Established use of this integration demonstrated by (for example):

1. Establishing correlations between officer opinion of crash severity and actual EMS severity assessment and medical care given;
2. Roundtrip time of EMS dispatch to delivery to medical facility.
3. Comparison of officer reported medical dispatch and arrival times to EMS-provided dispatch and arrival times;
4. Delayed fatalities to the delay time of receiving medical attention; and
5. Delayed fatalities to type of medical facility initially receiving the patient.

4.3.8.4 Citation-Adjudication Portal

- Functioning web-based portal that satisfies current needs of all stakeholders.
- Specification of improvements for anticipated needs in the future.

4.3.8.5 Mobile Officers' Virtual Environment (MOVE) upgrades to support integration.

- Addition of at least three new functions to MOVE over the 2020 fiscal year.

4.3.8.6 Mobile device technology.

- At least three applications ported over to smart phone or smart tablet technology before the end of the 2020 fiscal year.

4.3.8.7 Data-Driver Approaches to Crime and Traffic Safety (DDACTS)

- Creation of at least one implemented DDACTS system by the end of FY 2017; e.g., the integration of crash, incident and citation data to determine optimal placement of law enforcement assets.

4.3.8.8 CARE multiple database ETL development.

- One application functional every fiscal year of the following: (1) crash-roadway; (2) crash-citation; (3) crash-EMS/injury; (4) crash-vehicle.

4.3.8.9 Tighter eGIS integration

- Documentation of a systems study to determine which component database combinations will produce the most benefit from being integrated by location.
- Prioritized plan for the integration by location.
- Prototype functional integrated map-based information generation.

4.3.8.10 Safety Portal full implementation

- The functioning portal with two major CARE/ADVANCE datasets added per year over the planning horizon.

4.3.8.11 Countermeasure evaluations

- Result of an analysis to determine and prioritize those countermeasures that are most in need of evaluation from the viewpoint of feasibility and the flexibility to make modifications to improve the programs under consideration.
- Intermediate and final evaluation documentation.

4.3.8.12 SafeHomeAlabama.gov

- Add 10 pages to SHA and assure that information received is posted out on the web site within one hour of receipt by the end of FY 2020.
- Increase the Twitter account that announces all significant updates to SHA to 100 followers.

State traffic records strategic plan

Strategic Plan, approved by the TRCC, that— (i) Describes specific, quantifiable and measurable improvements that are anticipated in the State's core safety databases (ii) Includes a list of all recommendations from its most recent highway safety data and traffic records system assessment; (iii) Identifies which recommendations the State intends to address in the fiscal year, the countermeasure strategies and planned activities that implement each recommendation, and the performance measures to be used to demonstrate quantifiable and measurable progress; and (iv) Identifies which recommendations the State does not intend to address in the fiscal year and explains the reason for not implementing the recommendations:

Planned activities that implement recommendations:

Unique Identifier	Planned Activity Name
M3DA-20-HC-M3	Electronic Patient Care Reports Program
20-TF-TR-001	Traffic Safety Information Systems
M3DA-20-TR-M3	Traffic Safety Records Improvement Program

Quantitative and Measurable Improvement

Supporting documentation covering a contiguous 12-month performance period starting no earlier than April 1 of the calendar year prior to the application due date, that demonstrates quantitative improvement when compared to the comparable 12-month baseline period.

State Highway Safety Data and Traffic Records System Assessment

Date of the assessment of the State's highway safety data and traffic records system that was conducted or updated within the five years prior to the application due date:

Date of Assessment: 3/28/2016

Requirement for maintenance of effort

ASSURANCE: The lead State agency responsible for State traffic safety information system improvements programs shall maintain its aggregate expenditures for State traffic safety information system improvements programs at or above the average level of such expenditures in fiscal years 2014 and 2015

405(d) Impaired driving countermeasures grant

Impaired driving assurances

Impaired driving qualification: **Mid-Range State**

ASSURANCE: The State shall use the funds awarded under 23 U.S.C. 405(d)(1) only for the implementation and enforcement of programs authorized in 23 C.F.R. 1300.23(j).

ASSURANCE: The lead State agency responsible for impaired driving programs shall maintain its aggregate expenditures for impaired driving programs at or above the average level of such expenditures in fiscal years 2014 and 2015.

Impaired driving program assessment

Date of the last NHTSA-facilitated assessment of the State's impaired driving program conducted:

Date of Last NHTSA Assessment:

Authority to operate

Direct copy of the section of the statewide impaired driving plan that describes the authority and basis for the operation of the Statewide impaired driving task force, including the process used to develop and approve the plan and date of approval.

Authority and Basis of Operation

The authority and basis for the operation of the Alabama Statewide impaired driving task force, as well as the process used to develop and approve the plan can be located in the Charter of the Alabama Impaired Driving Prevention Council (AIDPC), as seen below.

Charter of the Alabama Impaired Driving Prevention Council (AIDPC)

Founded July 2013

PREAMBLE

The impact that impaired driving has on the families of Alabama and its citizens are both devastating and preventable. It is the preventable nature of impaired driving cases that is at the core of the Alabama Impaired Driving Prevention Council. It is the Council's ambition that its formulation will serve to demonstrate that Alabama is resolute about attacking this issue and achieving the goal of zero fatalities at the hand of impaired drivers.

ARTICLE ONE: PURPOSE

The Alabama Impaired Driving Prevention Council (AIDPC) serves as a Driving Under the Influence (DUI) workgroup. It provides leadership and guidance for citizens seeking to significantly reduce the number of collisions, injuries, and deaths caused by impaired drivers. It provides qualitative input and assistance to the legislature, state agencies, and other organizations combating impaired driving and its consequences.

ARTICLE TWO: MEMBERSHIP

2.1 MEMBERS: The AIDPC shall be comprised of agencies, offices, and organizations from public and private sectors of state leadership, each of whom possess a demonstrated interest in impaired driving prevention. The following agencies, offices, and organizations are members:

- Alabama Department of Economic and Community Affairs/Law Enforcement & Traffic Safety Division (ADECA/LETS) • Alabama Beverage Control Board (ABC) • Alabama District Attorneys Association (ADAA) • Board of Pardons and Paroles • Court Referral Program • Department of Forensic Sciences • Department of Public Safety • Member(s) of the Alabama Legislature • Mothers Against Drunk Driving (MADD) • State Coordinator for the Drug Recognition Expert (DRE) Program • Students Against Destructive Decisions (SADD) • Traffic Safety Resource Prosecutor (TSRP) • At least one of the following: o Assistant District Attorney o Certified DRE o District Court Judge o Municipal Court Judge • The chairperson may appoint additional members on an as-needed basis. Any additional member(s) shall be confirmed by a two-thirds committee vote.

2.2 TERM: Each member will serve a term of two calendar years and may be reappointed.

2.3 VOTING: Each member will have one vote. For a vote to take place, representatives of at least eleven members must be physically present.

2.4 RESIGNATION: Any member shall have the right to resign his or her position on the AIDPC. Any resignation should be provided to the Chairman with 30 days' notice. The Chairman may request that another designee be appointed to replace a member for poor attendance.

2.5 DESIGNEES: Designees are permitted and shall have full voting power, except that there will be no designees for the two immediate past chairmen and vice chairmen.

ARTICLE THREE: MEETINGS

3.1 REGULAR MEETINGS: The AIDPC shall meet semi-annually at a time and location specified by the chairman.

3.2 SPECIAL MEETINGS: In addition to semi-annual meetings, special meetings for a stated purpose may be called by the chairman.

3.3 NOTICE: Notice of each meeting will be given at least seven calendar days in advance, by mail and/or email.

3.4 LOCATION: Meetings shall be held at a location place chosen by the chairman, with due consideration given to the convenience of all members and staff suitable for the occasions.

3.5 PROCEDURE: AIDPC shall follow parliamentary procedure as set forth in Robert's Rules of Order, newly revised, except when they conflict with this charter.

3.6 MINUTES: AIDPC shall take and maintain meeting minutes, including a record of the members present.

3.7 PLANNING: The Office of Prosecution Services will serve as a resource and provide logistical support for meeting location, preparations, notice, and minutes.

3.8 ATTENDANCE: Member organizations are allowed to have multiple representatives attend meetings. On such occasions the member organization must designate one person as the voting member.

3.9 APPROVAL: Members will develop and approve the Impaired Driving Strategic Plan.

ARTICLE FOUR: OFFICERS

4.1 CHAIRMAN AND VICE CHAIRMAN: There shall be a chairman and vice chairman. The chairman and vice chairman shall serve for a period of two years and may be reelected.

4.2 SECRETARY: The duties of the Secretary shall serve for a period of two years and may be reelected.

4.3 VACANCIES: Should a chairman resign prior to the expiration of his or her term, the vice chairman shall automatically become chairman and shall serve until the predecessor's term would have expired. Should a vice chairman resign prior to the expiration of his or her term, the chairman shall appoint an interim vice chairman to serve until the next regular meeting, at which time the members shall elect a vice chairman to serve until the predecessor's term would have expired.

ARTICLE FIVE: COMMITTEES

5.1 COMMITTEES: The following committees should be organized, chaired, and populated as necessary to accomplish the goals of the AIDPC: • Education/Prevention • Enforcement/Prosecution/Adjudication • Legislation • Treatment/Rehabilitation/Diversion

5.2 SPECIAL COMMITTEES: The chairman shall appoint or disband such special committees as necessary for the efficient operation of the AIDPC.

5.3 EXECUTIVE COMMITTEE: There shall be an Executive Committee, comprised of the following persons, to accomplish the goals of the AIDPC. • Chairman • Vice Chairman • Immediate past chairman • Immediate past vice chairman • Four committee chairmen or designees

5.4 COMMITTEE VOTING: Member organizations may be represented on multiple committees and may have designees attend committee meetings. Each member organization will have one vote per committee.

ARTICLE SIX: AMENDMENTS

6.1 This charter may be altered, amended, or repealed and a new charter may be adopted by a two-thirds vote of the membership representing a quorum thereof at any regular meeting of the AIDPC when a proposed amendment has been distributed with notice of such meeting.

6.2 For purposes of this Article, one-third of the membership plus one member constitute a quorum.

Further information can be found in section 2.1 of the Strategic Plan, as follows:

2.1 Alabama Impaired Driving Prevention Council (AIDPC)

The Alabama Impaired Driving Prevention Council (AIDPC) was assembled to develop and approve this plan and to assure that all aspects of the impaired driving problem were considered and that as many alternative countermeasures as possible could be evaluated. To create a strategic plan that would focus on the problem areas with the greatest opportunity for improvement, and establish a successfully functioning Council, it was essential to have representation from agencies and organizations with a working knowledge and deep understanding of the various parts of Alabama’s impaired driving prevention system and how the parts interrelate. The individuals who participated in the AIDPC meetings and assisted in drafting the Impaired Driving Strategic Plan (IDSP) are identified in Table 2.1. AIDPC organizers are deeply grateful for the time and effort members devoted to development of the strategic plan and for the counsel, advice, and expertise they brought to the plan, and that they continue to bring toward implementing it.

The major charge given by the AIDPC in its commission was to foster leadership, commitment, and coordination among all parties interested in impaired driving issues. Further, they were charged with the responsibility to attend regular meetings as established by the Chair, and to generally manage and provide overall control to the program as described in the ID Strategic Plan.

The IDSP was very heavily data-driven. In drafting the IDSP, members of the AIDPC relied on data on impaired-driving-related crashes, arrests, suspensions, and convictions data; also used were state-specific studies on youth and adult behavior and attitudes toward alcohol consumption/drug use specifically as they relate to impaired driving.

Key Stakeholders

NAME	AGENCY	TITLE	FUNCTION
Adair, Bill	Alabama District Attorneys Association	President	Prosecution
Anthony, Terry	Pardon & Parole	Director of Field Service	Probation
Babington, Bill	Alabama Department of Economic and Community Affairs	Division Chief	SHSO
Brown, Dr. David	University of Alabama	Professor – CAPS	Data/Traffic Records

Brown, Lt. Chris	Alabama Enforcement Agency	Law	Motor Carrier Unit	Law Enforcement
Burleson, Richard	Alabama Department Public Health		Director, of Review	Fatality Public Health
Hamilton, Angie	Prosecutor		ADA, Co.	Lauderdale Prosecution
Harper, Dr. Curt	Alabama Department Forensic Science		Toxicology of Discipline Chief	Drug Toxicology
Harris, Jason	Alabama Office of Courts		Court Program Specialist	Referral Treatment & Rehabilitation
Jones, Jay	Lee Sheriff's Office	County	Sheriff	Law Enforcement
Jones, Mike	Legislator		State Representative, 92nd District	Communication
King, Bettye	Municipal Clerk's Association		Municipal Clerk - Birmingham	Communication
Lindsey, Bill	Office Prosecution Services	of	TSRP	Prosecution/Communicatio n
Medley, Hon. Carole	Judiciary		District Lauderdale Co.	Judge, Adjudication
Morton, Pamela	MADD		State Services Coordinator	Victim Communication
Peacock, David	Alabama Beverage Control		Enforcement Attorney	Communication/Law Enforcement
Penton, Cpl. Jay	Alabama Enforcement Agency	Law	State DRE and SFST Coordinator	Law Enforcement

Robinson, Michael	Alabama Enforcement Agency	Law	Chief Counsel	Drivers Licensing
Sparks, Hon. Andra	Judiciary		Municipal Judge – Birmingham	Adjudication
Turner, Dr. Greg	Alabama Department Forensic Science	of	Technical Director, Implied Consent Unit	Breath testing/Ignition Interlock

Date that the Statewide impaired driving plan was approved by the State's task force.

Date impaired driving plan approved by task force: **11/5/2017**

Strategic plan details

State will use a previously submitted Statewide impaired driving plan that was developed and approved within three years prior to the application due date.

Continue to use previously submitted plan: **Yes**

ASSURANCE: The State continues to use the previously submitted Statewide impaired driving plan.

405(f) Motorcyclist safety grant

Certifications, Assurances, and Highway Safety Plan PDFs

Certifications and Assurances for 23 U.S.C. Chapter 4 and Section 1906 grants, signed by the Governor's Representative for Highway Safety, certifying to the HSP application contents and performance conditions and providing assurances that the State will comply with applicable laws, and financial and programmatic requirements.

Supporting Document

FY2020Certifications.pdf
