State of Alabama Fiscal Year 2018

Highway Safety Plan

Prepared for

The US Department Of Transportation
National Highway Traffic Safety Administration
and
Federal Highway Administration

by the

State of Alabama
Kay Ivey, Governor

Kenneth W. Boswell, Director
Alabama Department of Economic and Community Affairs
William M. Babington, Governor's Highway Safety Representative
Law Enforcement and Traffic Safety Division Chief

June 30, 2017

CAPS | CENTER *for* ADVANCED PUBLIC SAFETY

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APPENDIX A TO PART 1300 —

CERTIFICATIONS AND ASSURANCES FOR HIGHWAY SAFETY GRANTS (23 U.S.C. CHAPTER 4; SEC. 1906, PUB. L. 109-59, AS AMENDED BY SEC. 4011, PUB. L. 114-94)

[Each fiscal year, the Governor's Representative for Highway Safety must sign these Certifications and Assurances affirming that the State complies with all requirements, including applicable Federal statutes and regulations, that are in effect during the grant period. Requirements that also apply to subrecipients are noted under the applicable caption.]

State: Alabama Fiscal Year: 2018

By submitting an application for Federal grant funds under 23 U.S.C. Chapter 4 or Section 1906, the State Highway Safety Office acknowledges and agrees to the following conditions and requirements. In my capacity as the Governor's Representative for Highway Safety, I hereby provide the following Certifications and Assurances:

GENERAL REQUIREMENTS

The State will comply with applicable statutes and regulations, including but not limited to:

- 23 U.S.C. Chapter 4 – Highway Safety Act of 1966, as amended
- Sec. 1906, Pub. L. 109-59, as amended by Sec. 4011, Pub. L. 114-94
- 23 CFR part 1300 -Uniform Procedures for State Highway Safety Grant Programs
- 2 CFR part 200 -Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards
- 2 CFR part 1201 -Department of Transportation, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards

INTERGOVERNMENTAL REVIEW OF FEDERAL PROGRAMS

The State has submitted appropriate documentation for review to the single point of contact designated by the Governor to review Federal programs, as required by Executive Order 12372 (Intergovernmental Review of Federal Programs).

FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT (FFATA)

The State will comply with FFATA guidance, OMB Guidance on FFATA Subaward and Executive Compensation Reporting, August 27, 2010, (https://www.fsrs.gov/documents/OMB_Guidance_on_FFATA_Subaward_and_Executive_Compensation_Reporting_08272010.pdf) by reporting to FSRS.gov for each sub-grant awarded:

- Name of the entity receiving the award;
- Amount of the award;

- Information on the award including transaction type, funding agency, the North American Industry Classification System code or Catalog of Federal Domestic Assistance number (where applicable), program source;
- Location of the entity receiving the award and the primary location of performance under the award, including the city, State, congressional district, and country; and an award title descriptive of the purpose of each funding action;
- A unique identifier (DUNS);
- The names and total compensation of the five most highly compensated officers of the entity if:
  (i) the entity in the preceding fiscal year received-
    (I) 80 percent or more of its annual gross revenues in Federal awards;
    (II) $25,000,000 or more in annual gross revenues from Federal awards; and
  (ii) the public does not have access to information about the compensation of the senior executives of the entity through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986;
- Other relevant information specified by OMB guidance.

NONDISCRIMINATION

(applies to subrecipients as well as States)

The State highway safety agency will comply with all Federal statutes and implementing regulations relating to nondiscrimination ("Federal Nondiscrimination Authorities"). These include but are not limited to:

- **Title VI of the Civil Rights Act of 1964** (42 U.S.C. 2000d *et seq.,* 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin) and 49 CFR part 21;
- **The Uniform Relocation Assistance and Real Property Acquisition Policies** Act of 1970, (42 U.S.C. 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- **Federal-Aid Highway Act of 1973,** (23 U.S.C. 324 *et seq.),* **and Title IX of the**
- **Education Amendments of 1972,** as amended (20 U.S.C. 1681-1683 and 1685-1686) (prohibit discrimination on the basis of sex);
- **Section 504 of the Rehabilitation Act of 1973,** (29 U.S.C. 794 *et seq.),* as amended, (prohibits discrimination on the basis of disability) and 49 CFR part 27;
- **The Age Discrimination Act of 1975,** as amended, (42 U.S.C. 6101 *et seq.),* (prohibits discrimination on the basis of age);
- **The Civil Rights Restoration Act of 1987,** (Pub. L. 100-209), (broadens scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal aid recipients, sub-recipients and contractors, whether such programs or activities are Federally-funded or not);
- **Titles II and III of the Americans with Disabilities Act** (42 U.S.C. 12131-12189) (prohibits discrimination on the basis of disability in the operation of public entities,

public and private transportation systems, places of public accommodation, and certain testing) and 49 CFR parts 37 and 38;

- **Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations** (prevents discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations); and
- **Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency** (guards against Title VI national origin discrimination/discrimination because of limited English proficiency (LEP) by ensuring that funding recipients take reasonable steps to ensure that LEP persons have meaningful access to programs (70 FR at 74087 to 74100).

The State highway safety agency-

- Will take all measures necessary to ensure that no person in the United States shall, on the grounds of race, color, national origin, disability, sex, age, limited English proficiency, or membership in any other class protected by Federal Nondiscrimination Authorities, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any of its programs or activities, so long as any portion of the program is Federally-assisted.

- Will administer the program in a manner that reasonably ensures that any of its subrecipients, contractors, subcontractors, and consultants receiving Federal financial assistance under this program will comply with all requirements of the Non-Discrimination Authorities identified in this Assurance;

- Agrees to comply (and require any of its subrecipients, contractors, subcontractors, and consultants to comply) with all applicable provisions of law or regulation governing US DOT's or NHTSA's access to records, accounts, documents, information, facilities, and staff, and to cooperate and comply with any program or compliance reviews, and/or complaint investigations conducted by US DOT or NHTSA under any Federal Nondiscrimination Authority;

- Acknowledges that the United States has a right to seek judicial enforcement with regard to any matter arising under these Non-Discrimination Authorities and this Assurance;

- Insert in all contracts and funding agreements with other State or private entities the following clause:

"During the performance of this contract/funding agreement, the contractor/funding recipient agrees-

a. To comply with all Federal nondiscrimination laws and regulations, as may be amended from time to time;

b. Not to participate directly or indirectly in the discrimination prohibited by any Federal non-discrimination law or regulation, as set forth in Appendix B of 49 CFR part 21 and herein;

c. To permit access to its books, records, accounts, other sources of information, and its facilities as required by the State highway safety office, US DOT or NHTSA;

d. That, in event a contractor/funding recipient fails to comply with any nondiscrimination provisions in this contract/funding agreement, the State highway safety agency will have the right to impose such contract/agreement sanctions as it or NHTSA determine are appropriate, including but not limited to withholding payments to the contractor/funding recipient under the contract/agreement until the contractor/funding recipient complies; and/or cancelling, terminating, or suspending a contract or funding agreement, in whole or in part; and

e. To insert this clause, including paragraphs a through e, in every subcontract and subagreement and in every solicitation for a subcontract or sub-agreement, that receives Federal funds under this program.

THE DRUG-FREE WORKPLACE ACT OF 1988 (41 U.S.C. 8103)

The State will provide a drug-free workplace by:

a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
b. Establishing a drug-free awareness program to inform employees about:
    - The dangers of drug abuse in the workplace.
    - The grantee's policy of maintaining a drug-free workplace.
    - Any available drug counseling, rehabilitation, and employee assistance programs.
    - The penalties that may be imposed upon employees for drug violations occurring in the workplace.
    - Making it a requirement that each employee engaged in the performance of the grant be given a copy of the statement required by paragraph (a).
c. Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
    - Abide by the terms of the statement.
    - Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five days after such conviction.
d. Notifying the agency within ten days after receiving notice under subparagraph (c)(2) from an employee or otherwise receiving actual notice of such conviction.
e. Taking one of the following actions, within 30 days of receiving notice under subparagraph (c)(2), with respect to any employee who is so convicted —

- Taking appropriate personnel action against such an employee, up to and including termination.
- Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.

f. Making a good faith effort to continue to maintain a drug-free workplace through implementation of all of the paragraphs above.

POLITICAL ACTIVITY (HATCH ACT)
(applies to subrecipients as well as States)

The State will comply with provisions of the Hatch Act (5 U.S.C. 1501-1508), which limits the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

CERTIFICATION REGARDING FEDERAL LOBBYING
(applies to subrecipients as well as States)

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all sub-award at all tiers (including subcontracts, subgrants, and contracts under grant, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who

fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

RESTRICTION ON STATE LOBBYING
(applies to subrecipients as well as States)

None of the funds under this program will be used for any activity specifically designed to urge or influence a State or local legislator to favor or oppose the adoption of any specific legislative proposal pending before any State or local legislative body. Such activities include both direct and indirect (e.g., "grassroots") lobbying activities, with one exception. This does not preclude a State official whose salary is supported with NHTSA funds from engaging in direct communications with State or local legislative officials, in accordance with customary State practice, even if such communications urge legislative officials to favor or oppose the adoption of a specific pending legislative proposal.

CERTIFICATION REGARDING DEBARMENT AND SUSPENSION
(applies to subrecipients as well as States)

Instructions for Primary Certification (States)

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below and agrees to comply with the requirements of 2 CFR Parts 180 and 1300.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default or may pursue suspension or debarment.

4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms *covered transaction, debarment, suspension, ineligible, lower tier, participant, person, primary tier, principal, and voluntarily excluded,* as used in this clause, have the

meaning set out in the Definitions and coverage sections of 2 CFR Part 180. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by NHTSA.

7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Instructions for Lower Tier Certification" including the "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions and will require lower tier participants to comply with 2 CFR Parts 180 and 1300.

8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the list of Parties Excluded from Federal Procurement and Non-procurement Programs.

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, the department or agency may disallow costs, annul or terminate the transaction, issue a stop work order, debar or suspend you, or take other remedies as appropriate.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters-Primary Covered Transactions

(I) The prospective primary participant certifies to the best of its knowledge and belief, that its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of record, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or Local) with commission of any of the offenses enumerated in paragraph (l)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the Statements in this certification, such prospective participant shall attach an explanation to this proposal.

Instructions for Lower Tier Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below and agrees to comply with the requirements of 2 CFR Parts 180 and 1300.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms *covered transaction, debarment, suspension, ineligible, lower tier, participant, person, primary tier, principal, and voluntarily excluded*, as used in this clause, have the meanings set out in the Definition and Coverage sections of 2 CFR Part 180. You may contact the person to whom this proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by NHTSA.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled "Instructions for Lower Tier Certification" including the "Certification

Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions and will require lower tier participants to comply with 2 CFR Parts 180 and 1300.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Non-procurement Programs.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, the department or agency with which this transaction originated may disallow costs, annul or terminate the transaction, issue a stop work order, debar or suspend you, or take other remedies as appropriate.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

BUY AMERICA ACT

(applies to subrecipients as well as States)

The State and each subrecipient will comply with the Buy America requirement (23 U.S.C. 313) when purchasing items using Federal funds. Buy America requires a State, or subrecipient, to purchase only steel, iron and manufactured products produced in the United States with Federal funds, unless the Secretary of Transportation determines that such domestically produced items would be inconsistent with the public interest, that such materials are not reasonably available and of a satisfactory quality, or that inclusion of domestic materials will increase the cost of the overall project contract by more than 25 percent. In order to use Federal funds to purchase

foreign produced items, the State must submit a waiver request that provides an adequate basis and justification to and approved by the Secretary of Transportation.

PROHIBITION ON USING GRANT FUNDS TO CHECK FOR HELMET USAGE
(applies to subrecipients as well as States)

The State and each subrecipient will not use 23 U.S.C. Chapter 4 grant funds for programs to check helmet usage or to create checkpoints that specifically target motorcyclists.

POLICY ON SEAT BELT USE

In accordance with Executive Order 13043, Increasing Seat Belt Use in the United States, dated April 16, 1997, the Grantee is encouraged to adopt and enforce on-the-job seat belt use policies and programs for its employees when operating company-owned, rented, or personally-owned vehicles. The National Highway Traffic Safety Administration (NHTSA) is responsible for providing leadership and guidance in support of this Presidential initiative. For information on how to implement such a program, or statistics on the potential benefits and cost-savings to your company or organization, please visit the Buckle Up America section on NHTSA's website at www.nhtsa.dot.gov. Additional resources are available from the Network of Employers for Traffic Safety (NETS), a public-private partnership headquartered in the Washington, D.C. metropolitan area, and dedicated to improving the traffic safety practices of employers and employees. NETS is prepared to provide technical assistance, a simple, user-friendly program kit, and an award for achieving the President's goal of 90 percent seat belt use. NETS can be contacted at 1 (888) 221-0045 or visit its website at www.trafficsafety.org.

POLICY ON BANNING TEXT MESSAGING WHILE DRIVING

In accordance with Executive Order 13513, Federal Leadership On Reducing Text Messaging While Driving, and DOT Order 3902.10, Text Messaging While Driving, States are encouraged to adopt and enforce workplace safety policies to decrease crashed caused by distracted driving, including policies to ban text messaging while driving company-owned or -rented vehicles, Government-owned, leased or rented vehicles, or privately-owned when on official Government business or when performing any work on or behalf of the Government. States are also encouraged to conduct workplace safety initiatives in a manner commensurate with the size of the business, such as establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving, and education, awareness, and other outreach to employees about the safety risks associated with texting while driving.

SECTION 402 REQUIREMENTS

1. To the best of my personal knowledge, the information submitted in the Highway Safety Plan in support of the State's application for a grant under 23 U.S.C. 402 is accurate and complete.

2. The Governor is the responsible official for the administration of the State highway safety program, by appointing a Governor's Representative for Highway Safety who shall be responsible for a State highway safety agency that has adequate powers and is suitably

equipped and organized (as evidenced by appropriate oversight procedures governing such areas as procurement, financial administration, and the use, management, and disposition of equipment) to carry out the program. (23 U.S.C. 402(b)(l)(A))

3. The political subdivisions of this State are authorized, as part of the State highway safety program, to carry out within their jurisdictions local highway safety programs which have been approved by the Governor and are in accordance with the uniform guidelines promulgated by the Secretary of Transportation. (23 U.S.C. 402(b)(l)(B))

4. At least 40 percent of all Federal funds apportioned to this State under 23 U.S.C. 402 for this fiscal year will be expended by or for the benefit of political subdivisions of the State in carrying out local highway safety programs (23 U.S.C. 402(b)(l)(C)) or 95 percent by and for the benefit of Indian tribes (23 U.S.C. 402(h)(2)), unless this requirement is waived in writing. (This provision is not applicable to the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.)

5. The State's highway safety program provides adequate and reasonable access for the safe and convenient movement of physically handicapped persons, including those in wheelchairs, across curbs constructed or replaced on or after July 1, 1976, at all pedestrian crosswalks. (23 U.S.C. 402(b)(l)(D))

6. The State will provide for an evidenced-based traffic safety enforcement program to prevent traffic violations, crashes, and crash fatalities and injuries in areas most at risk for such incidents. (23 U.S.C. 402(b)(1)(E))

7. The State will implement activities in support of national highway safety goals to reduce motor vehicle related fatalities that also reflect the primary data-related crash factors within the State, as identified by the State highway safety planning process, including:
   - Participation in the National high-visibility law enforcement mobilizations as identified annually in the NHTSA Communications Calendar, including not less than 3 mobilization campaigns in each fiscal year to –
     - o Reduce alcohol-impaired or drug-impaired operation of motor vehicles; and
     - o Increase use of seatbelts by occupants of motor vehicles;
   - Submission of information regarding mobilization participation in accordance with 23 CFR part 1300.11(d)(6)(ii);
   - Sustained enforcement of statutes addressing impaired driving, occupant protection, and driving in excess of posted speed limits;
   - An annual Statewide seat belt use survey in accordance with 23 CFR part 1340 for the measurement of State seat belt use rates, except for the Secretary of Interior on behalf of Indian tribes;
   - Development of Statewide data systems to provide timely and effective data analysis to support allocation of highway safety resources;
   - Coordination of Highway Safety Plan, data collection, and information systems with the State strategic highway safety plan, as defined in 23 U.S.C. 148(a). (23 U.S.C. 402(b)(l)(F))

8. The State will actively encourage all relevant law enforcement agencies in the State to follow the guidelines established for vehicular pursuits issued by the International Association of Chiefs of Police that are currently in effect. (23 U.S.C. 402(j))

9. The State will not expend Section 402 funds to carry out a program to purchase, operate, or maintain an automated traffic enforcement system. (23 U.S.C. 402(c)(4))

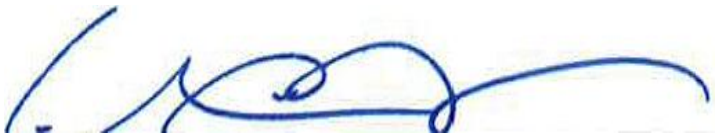
The State: ***[CHECK ONLY ONE]***

☐ Certifies that automated traffic enforcement systems are not used on any public road in the State;

OR

☑ Is unable to certify that automated traffic enforcement systems are not used on any public road in the State, and therefore will conduct a survey meeting the requirements of 23 CFR 1300.13(d)(3) AND will submit the survey results to the NHTSA Regional office no later than March 1 of the fiscal year of the grant.

I understand that my statements in support of the State's application for Federal grant funds are statements upon which the Federal Government will rely in determining qualification for grant funds, and that knowing misstatements may be subject to civil or criminal penalties under 18 U.S.C. 1001. I sign these Certifications and Assurances based on personal knowledge, and after appropriate inquiry.



Signature Governor's Representative for Highway Safety

6/7/17

Date

William M. Babington

Printed name of Governor's Representative for Highway Safety

COST SUMMARY

U.S. Department of Transportation National Highway Traffic Safety Administration

State: Alabama

Highway Safety Plan Cost Summary

2018-HSP-1

For Approval

Report Date: 06/14/2017

Program Area	Project	Description	Prior Approved Program Funds	State Funds	Previous Bal.	Incre/(Decre)	Current Balance	Share to Local
NHTSA								
NHTSA 402								
Planning and Administration								
	PA-2018-00-00-00	Planning & Administration	$.00	$300,000.00	$.00	$300,000.00	$300,000.00	$.00
Planning and Administration Total			**$.00**	**$300,000.00**	**$.00**	**$300,000.00**	**$300,000.00**	**$.00**
Alcohol								
	AL-2018-SP-AL-01	Alcohol (Alabama Law Enforcement Agency)	$.00	$.00	$.00	$35,000.00	$35,000.00	$.00
Alcohol Total			**$.00**	**$.00**	**$.00**	**$35,000.00**	**$35,000.00**	**$.00**
Police Traffic Services								
	PT-2018-SP-CP-02	Police Traffic (Enterprise St Com Coll)	$.00	$.00	$.00	$154,320.00	$154,320.00	$154,320.00
	PT-2018-SP-PT-01	Police Traffic (City of Opelika)	$.00	$.00	$.00	$239,600.00	$239,600.00	$239,600.00
	PT-2018-SP-PT-03	Police Traffic (Franklin Cty Comm)	$.00	$.00	$.00	$255,840.00	$255,840.00	$255,840.00
	PT-2018-SP-PT-04	Police Traffic (Mobile Cty Comm)	$.00	$.00	$.00	$150,240.00	$150,240.00	$150,240.00
	PT-2018-SP-PT-05	Police Traffic (AL Law Enforcement Agenc	$.00	$.00	$.00	$800,000.00	$800,000.00	$.00
Police Traffic Services Total			**$.00**	**$.00**	**$.00**	**$1,600,000.00**	**$1,600,000.00**	**$800,000.00**
Community Traffic Safety Project								
	CP-2018-00-00-00	Section 402 Transfer Holding	$.00	$507,712.25	$.00	$2,030,849.00	$2,030,849.00	$.00
	CP-2018-SP-CP-01	Comm Traffic Safety(City of Opelika)	$.00	$60,017.69	$.00	$180,053.07	$180,053.07	$180,053.07
	CP-2018-SP-CP-02	Comm Traffic Safety(Enterprise St Com Co	$.00	$54,932.43	$.00	$164,797.31	$164,797.31	$164,797.31
	CP-2018-SP-CP-03	Comm Traffic Safety(Franklin Cty Com)	$.00	$60,945.90	$.00	$182,837.72	$182,837.72	$182,837.72
	CP-2018-SP-CP-04	Comm Traffic Safety(Mobile Cty Com)	$.00	$58,381.00	$.00	$175,143.00	$175,143.00	$175,143.00
	CP-2018-SP-CP-05	ADECA Com Traffic Safety Program Manager	$.00	$.00	$.00	$75,000.00	$75,000.00	$.00
	CP-2018-SP-CP-06	ADECA Com Traffic Safety Program Manager	$.00	$.00	$.00	$60,000.00	$60,000.00	$.00
Community Traffic Safety Project Total			**$.00**	**$741,989.27**	**$.00**	**$2,868,680.10**	**$2,868,680.10**	**$702,831.10**
NHTSA 402 Total			***$.00***	**$1,041,989.27**	***$.00***	***$4,803,680.10***	***$4,803,680.10***	***$1,502,831.10***

Program Area	Project	Description	Prior Approved Program Funds	State Funds	Previous Bal.	Incre/(Decre)	Current Balance	Share to Local
MAP 21 405b OP High								
405b High HVE								
	M1HVE-2018-HB-M1-02	CIOT (City of Opelika)	$.00	$.00	$.00	$64,740.00	$64,740.00	$64,740.00
	M1HVE-2018-HB-M1-03	CIOT (Enterprise St Com Coll)	$.00	$.00	$.00	$41,740.00	$41,740.00	$41,740.00
	M1HVE-2018-HB-M1-04	CIOT (Franklin Cty Comm)	$.00	$.00	$.00	$53,720.00	$53,720.00	$53,720.00
	M1HVE-2018-HB-M1-05	CIOT (Mobile Cty Comm)	$.00	$.00	$.00	$39,800.00	$39,800.00	$39,800.00
	M1HVE-2018-HB-M1-06	2018 CIOT Paid Media (Auburn University)	$.00	$.00	$.00	$357,000.00	$357,000.00	$.00
	405b High HVE Total		**$.00**	**$.00**	**$.00**	**$557,000.00**	**$557,000.00**	**$200,000.00**
405b High Public Education								
	M1PE-2018-HB-M1-01	Public Education(Franklin Cty Commission	$.00	$.00	$.00	$155,000.00	$155,000.00	$155,000.00
	405b High Public Education Total		**$.00**	**$.00**	**$.00**	**$155,000.00**	**$155,000.00**	**$155,000.00**
405b OP High								
	M1X-2018-00-00-00	MAP 21 405b Transfer Holding	$.00	$178,000.00	$.00	$40,000.00	$40,000.00	$.00
	405b OP High Total		**$.00**	**$.00**	**$.00**	**$40,000.00**	**$40,000.00**	**$.00**
	MAP 21 405b OP High Total		***$.00***	***$178,000.00***	***$.00***	***$752,000.00***	***$752,000.00***	***$355,000.00***
MAP 21 405c Data Program								
405c Data Program								
	M3DA-2018-00-00-00	MAP 21 405c Transfer Holding	$.00	$190,381.96	$.00	$93,684.05	$93,684.05	$.00
	M3DA-2018-HC-M3-01	Data Program (University of AL)	$.00	$.00	$.00	$701,275.84	$701,275.84	$.00
	M3DA-2018-HC-M3-02	Data Program(AL Dept of Public Health)	$.00	$.00	$.00	$60,000.00	$60,000.00	$.00
	405c Data Program Total		**$.00**	**$.00**	**$.00**	**$854,959.89**	**$854,959.89**	**$.00**
	MAP 21 405c Data Program Total		***$.00***	***$190,381.96***	***$.00***	***$854,959.89***	***$854,959.89***	***$.00***
MAP 21 405d Impaired Driving Mid								
405d Mid HVE								
	M5HVE-2018-00-00-00	405d Mid HVE (Transfer Holding)	$.00	$367,819.56	$.00	$194,266.05	$194,266.05	$.00

Program Area	Project	Description	Prior Approved Program Funds	State Funds	Previous Bal.	Incre/(Decre)	Current Balance	Share to Local
	M5HVE-2018-HD-M5-01	Impaired Driving(City of Opelika)	$.00	$.00	$.00	$204,190.00	$204,190.00	$204,190.00
	M5HVE-2018-HD-M5-02	Impaired Driving(Enterprise State Comm C	$.00	$.00	$.00	$140,980.00	$140,980.00	$140,980.00
	M5HVE-2018-HD-M5-03	Impaired Driving(Franklin County Commiss	$.00	$.00	$.00	$225,540.00	$225,540.00	$225,540.00
	M5HVE-2018-HD-M5-04	Impaired Driving(Mobile County Commissio	$.00	$.00	$.00	$129,290.00	$129,290.00	$129,290.00
	M5HVE-2018-HD-M5-05	Impaired Driving(AL Law Enforcement Agen	$.00	$.00	$.00	$400,000.00	$400,000.00	$.00
	M5HVE-2018-HD-M5-07	Drive Sober (City of Opelika)	$.00	$.00	$.00	$53,700.00	$53,700.00	$53,700.00
	M5HVE-2018-HD-M5-08	Drive Sober (Enterprise State Comm Coll)	$.00	$.00	$.00	$48,140.00	$48,140.00	$48,140.00
	M5HVE-2018-HD-M5-09	Drive Sober (Franklin County Commission)	$.00	$.00	$.00	$52,780.00	$52,780.00	$52,780.00
	M5HVE-2018-HD-M5-10	Drive Sober (Mobile County Commission)	$.00	$.00	$.00	$45,380.00	$45,380.00	$45,380.00
	405d Mid HVE Total		**$.00**	**$.00**	**$.00**	**$1,494,266.05**	**$1,494,266.05**	**$900,000.00**
405d Mid Court Support								
	M5CS-2018-HD-M5-11	TSRP (Office of Prosecution Services)	$.00	$.00	$.00	$171,278.23	$171,278.23	$.00
	405d Mid Court Support Total		**$.00**	**$.00**	**$.00**	**$171,278.23**	**$171,278.23**	**$.00**
	MAP 21 405d Impaired Driving Mid Total		***$.00***	***$367,819.56***	***$.00***	***$1,665,544.28***	***$1,665,544.28***	***$900,000.00***
FAST Act NHTSA 402								
Community Traffic Safety Project								
	CP-2018-00-00-00	FAST Act 402 Transfer Holding	$.00	$.00	$.00	$2,256,859.01	$2,256,859.01	$2,256,859.01
	Community Traffic Safety Project Total		**$.00**	**$.00**	**$.00**	**$2,256,859.01**	**$2,256,859.01**	**$2,256,859.01**
	FAST Act NHTSA 402 Total		***$.00***	***$.00***	***$.00***	***$2,256,859.01***	***$2,256,859.01***	***$2,256,859.01***
FAST Act 405b OP High								
405b High HVE								
	M1HVE-2018-00-00-00	Fast Act 405b OP High Transfer Holding	$.00	$49,462.65	$.00	$152,930.27	$152,930.27	$.00

Program Area	Project	Description	Prior Approved Program Funds	State Funds	Previous Bal.	Incre/(Decre)	Current Balance	Share to Local
405b High HVE Total			**$.00**	**$.00**	**$.00**	**$152,930.27**	**$152,930.27**	**$.00**
405b High OP Information System								
	M1OP-2018-OP-M1-01	Information System (University of AL)	$.00	$.00	$.00	$197,850.58	$197,850.58	$.00
405b High OP Information System Total			**$.00**	**$.00**	**$.00**	**$197,850.58**	**$197,850.58**	**$.00**
FAST Act 405b OP High Total			***$.00***	***$49,462.65***	***$.00***	***$350,780.85***	***$350,780.85***	***$.00***
FAST Act 405c Data Program								
405c Data Program								
	M3DA-2018-00-00-00	FAST Act 405c Transfer Holding	$.00	$.00	$.00	$384,251.00	$384,251.00	$.00
405c Data Program Total			**$.00**	**$.00**	**$.00**	**$384,251.00**	**$384,251.00**	**$.00**
FAST Act 405c Data Program Total			***$.00***	***$.00***	***$.00***	***$384,251.00***	***$384,251.00***	***$.00***
FAST Act 405d Impaired Driving Mid								
405d Mid HVE								
	M5HVE-2018-00-00-00	FAST Act 405d Mid HVE (Transfer Holding)	$.00	$271,891.93	$.00	$287,775.35	$287,775.35	$.00
405d Mid HVE Total			**$.00**	**$271,891.93**	**$.00**	**$287,775.35**	**$287,775.35**	**$.00**
405d Mid Court Support								
	M5CS-2018-ID-M5-03	DRE-(AL Law Enforcement Agency)	$.00	$.00	$.00	$367,567.72	$367,567.72	$.00
405d Mid Court Support Total			**$.00**	**$.00**	**$.00**	**$367,567.72**	**$367,567.72**	**$.00**
405d Mid Paid/Earned Media								
	M5PEM-2018-ID-M5-01	Impaired Driving-Paid Media (Auburn University)	$.00	$.00	$.00	$360,000.00	$360,000.00	$.00
	M5PEM-2018-ID-M5-02	Drive Sober- Paid Media (Auburn University)	$.00	$.00	$.00	$360,000.00	$360,000.00	$.00
405d Mid Paid/Earned Media Total			**$.00**	**$.00**	**$.00**	**$720,000.00**	**$720,000.00**	**$.00**
FAST Act 405d Impaired Driving Mid Total			***$.00***	***$271,891.93***	***$.00***	***$1,375,343.07***	***$1,375,343.07***	***$.00***
NHTSA Total			***$.00***	***$2,099,545.37***	***$.00***	***$12,443,418.20***	***$12,443,418.20***	***$5,014,690.11***
Total			***$.00***	***$2,099,545.37***	***$.00***	***$12,443,418.20***	***$12,443,418.20***	***$5,014,690.11***

- Section 402, 405b-d: The match source may be a combination of the Alabama Law Enforcement Agency (ALEA), State Trust Fund and Local Law Enforcement Agencies. ALEA will use personnel costs (salaries), vehicle purchases, vehicle operations, and vehicle maintenance cost.

- The ALEA match funds are applicable to each NHTSA grant program. The Alabama Office of Highway Safety (AOHS) will make sure the ALEA, State Trust Fund, and Local Law Enforcement Agencies' matching funds will not be used to match another Federal grant program.

EXECUTIVE SUMMARY

The National Highway Traffic Safety Administration (NHTSA) is the primary federal funding agency for traffic safety efforts in the state of Alabama. The responsibility for administering these funds along with other state traffic safety funds has been assigned to the Alabama Office of Highway Safety (AOHS), which is housed within the Law Enforcement and Traffic Safety Division (LETS) of the Alabama Department of Economic and Community Affairs (ADECA). AOHS is directed by the Governor's Representative for Highway Safety and State Coordinator (GR&SC), to which the highway traffic safety staff reports.

A major requirement for the administration of the traffic safety programs for the state is the annual Highway Safety Plan (HSP), which is developed by AOHS. Its goal is to provide continuous guidance and improvement in Alabama's ongoing traffic safety efforts to assure that both federal and state traffic safety investments are allocated optimally. The state has made it a major operational objective to assure that the decisions as to the countermeasures to implement as well as the strategies for their implementation are totally *evidence-based*. This requires on-going analyses for problem identification and evaluation using crash, citation and other data in order to produce the maximum reduction of traffic fatalities and severe injuries on Alabama roadways.

This is the second year of the state safety programs operating under the Fixing America's Surface Transportation (FAST) Act that was signed into law on December 4, 2015. According to FAST Act, 402 Program highway safety funds must be used to support programs with one or more of the following categories: (1) recognition awards, (2) safety supplies and equipment, (3) educational materials, and (4) advertising. FAST also specified that these funds be used for equipment, travel, training, program administration and/or public communications. The Priority Safety Programs originally set by FAST are as follows:

- Occupant Protection
- Traffic Safety Information Systems Improvements
- Impaired Driving Countermeasures
- Distracted Driving
- Graduated Driver Licensing Laws
- Non-motorized Safety

Alabama is making concerted efforts to support these National Priority Safety Program efforts in all of its planning and program efforts.

In a coordinated effort over the past four decades, Alabama has been committed to supporting the various NHTSA focus areas. It has done this by meeting the requirements for Section 402 funding since the creation of NHTSA in the late 1960s. AOHS is organized with a central staff and four regional Community Traffic Safety Program (CTSP) Coordinators who report directly to the Governor's Representative. The CTSP Coordinators work closely together with the AOHS central administration to implement all programs that involve local police and county agencies as well as safety advocates. In addition, a Traffic Safety Resource Prosecutor is funded by AOHS to deal with impaired driving cases involving traffic violations. These range from minor misdemeanors to vehicular homicide cases.

Alabama's HSP has been consistent over the past decade with the following established attributes:

- **Vision:** 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.
- **Primary ideals:** To save the most lives and reduce the most suffering possible.
- **Countermeasure selection approach:** 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*.
- **Primary focus:** To implement 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.
- **Implementation Approach:** To stress the necessity for a cooperative effort that involves teamwork and diversity, including all organizations and individuals within the state who have traffic safety interests.
- **Participant mission:** To focus crash reduction countermeasures 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 use in the *evidence-based* approach that are outlined as follows:

- 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.
- 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.
- 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.
- For new countermeasures, at the highest level, evaluate alternative overall countermeasure strategies and select the ones that will best solve the problem; this will be illustrated at the highest level with Table 1 below.
- 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.

The highest level of problem identification is exemplified by Table 1 in the body of this report. Its objective is to compare the *potential* savings that could possibly be obtained by applying countermeasures against the various crash frequency and severity causes. An extract from Table 1 is given at the top of the next page.

Table 1 Extract: Top Ten Crash Types
Crash Data Organized by Top Fatality Causes – CY 2016

Crash Type (Causal Driver)	Fatal	Fatal %	Injuries	Injury %	PDO	PDO %	Total
1. Restraint Deficient*	464	4.38%	4,304	40.66%	5,818	54.96%	10,586
2. Impaired Driving	232	3.91%	2,342	39.51%	3,353	56.57%	5,927
3. Speeding	207	5.47%	1,720	45.48%	1,855	49.05%	3,782
4. Obstacle Removal	169	2.69%	2,136	34.05%	3,969	63.26%	6,274
5. Ped., Bicycle, School Bus	124	7.44%	957	57.44%	585	35.11%	1,666
6. Pedestrian	120	14.69%	658	80.54%	39	4.77%	817
7. License Status Deficiency	115	1.69%	2,216	32.54%	4,479	65.77%	6,810
8. Mature – Age > 64	115	0.81%	3,126	22.12%	10,893	77.07%	14,134
9. Motorcycle	108	6.41%	1,109	65.82%	468	27.77%	1,685
10. Youth – Age 16-20	107	0.45%	5,405	22.78%	18,219	76.77%	23,731

* All categories list number of crashes except for the "Restraint Deficient" and "Child Restraint Deficient" category. The restraint category cannot accurately be measured by number of crashes so it lists the number of unrestrained persons for each severity classification.

The overall purpose of Table 1 is to put the various traffic safety issues into perspective as far as their general magnitudes are concerned. It is very important to notice in interpreting and applying Table 1 that the crash categories given are not mutually exclusive. For example, a crash could involve a 19 year old, impaired, speeding, unrestrained driver whose license status is deficient who runs off the road and hits a tree (obstacle).

It goes without saying that it is impossible to reduce 100 fatalities with a countermeasure that can only possibly affect an issue that only had 50 fatalities in the previous year. Clearly restraint deficiencies, impaired driving and speeding are the primary causes of fatalities. This does not mean that all traffic safety resources must go to countermeasures in these three areas, or even the top 10. Sometimes a small investment can have a major impact on an issue that is not in the top ten. A balanced approach is needed to address issues further down on the list, since a relatively low funding allocation to one or more of these areas might be able to produce significant safety benefits. To state the converse, it does not matter how big the issue is if there is no hope in reducing it with an effective countermeasure. But, all other things being equal, the preference must go to the larger problems.

While the top three items in Table 1 will be given major consideration, the following presents information on other issues that have been established by problem identifications that have been done in the past five years that relate to the top ten crash types (in order of number of fatalities):

- Obstacle Removal – an *evidence-based* hotspot approach, quite similar to those given in this HSP, is being applied by the Alabama Department of Transportation (ALDOT) to assure that obstacle removal programs sponsored by the Federal Highway Administration (FHWA) and the State of Alabama are successful.

- Pedestrian, Bicycle and School Bus – this category is consolidated over several areas that involve young people who have not yet reached driving age, and especially those in the K-9 grade levels. Our society rightfully gives greater weight to young people, and the motivational programs for young people should include all aspects of traffic safety that impact their activities.
- Pedestrian – this covers all pedestrian fatalities for all ages. Pedestrian incidents tend to occur in those places where there are both many vehicles and many pedestrians – i.e., in the large metropolitan areas. 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.
- License Status Deficiency – this is highly correlated with DUI, speeding and other violations that would cause the revocation of the drivers' licenses. It is included to indicate that suspending the license is not an effective deterrent to all drivers, especially those who have little regard for the law.
- Mature Drivers – Age > 64 – this covers over 20 years (65-84) as opposed to Item 9, which is only five age years (16-20). On a normalized per year basis, it seems clear that countermeasure resources need to go to the younger drivers. However, the senior driver age classification is maintained because of the obvious growth in this group of drivers that is expected over the coming decade.
- Motorcycle – these crashes are particularly severe, and this became more of an issue with the surge in motorcycle use with the high fuel prices and decline in the economy that occurred three to five years in the past. Motorcyclist ages have also increased. Since these economic factors are now mitigated it is expected that relative improvements might be seen in a reduction of the previous levels.
- Youth – Age 16-20 – by any metric this age group is the most critical in reducing fatalities and all other crashes, even when normalized by number in the driving population. Generally this is attributable to a combination of inexperience and the risk-taking inclination of younger drivers. Because of the increase in this age group in CY 2016, a special problem identification study was performed that is given in Section 8.9.

Recognizing the relative comparisons among the various traffic safety crash types, the Highway Safety Plan for FY 2018 focuses mainly on: (1) speed and impaired driving, the two largest factors that *cause* injury and fatal crashes, and (2) lack of proper restraint use, which is the single greatest factor influencing severity. The general approach to implementing the Evidence-Based Enforcement (E-BE) approach included the following:

- Crashes that were in either the Speed or Impaired Driving category were identified,
- Locations with the highest numbers of severe injury crashes were included in a prioritized listing that provided the basis for their evidence-based selective enforcement efforts by state and local law enforcement agencies.
- At the same time an analysis was performed to find areas in which seat belt non-use was highest, and these were isolated for seat belt enforcement concentration.
- The ideal situations were sought where the speed/DUI and the seatbelt deficient hotspots align with each other; this is the rule rather than the exception since a large reason for restraint deficiency is a combination of DUI and risk taking.

These problem areas determined by the procedures given above, known as *hotspots*, were defined by specific criteria depending on the data availability for their roadway classifications. These hotspots are defined, listed and mapped in this plan and given to the applicable CTSP coordinators, who used them as the basis for their plans for the coming year.

The following provides examples of the countermeasures that are detailed in this plan:

- Support of the four Community Traffic Safety Program (CTSP) projects that involve the local coordination of the selective enforcement efforts as well and other local traffic safety efforts within each of the areas.
- Conduct four local Evidenced-Based Traffic Safety Enforcement Programs, one within each of the Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) regions.
- Conduct a statewide Evidenced-Based Traffic Safety Enforcement Program in conjunction with the Alabama Law Enforcement Agency (ALEA).
- Participate in the national "Click It or Ticket" campaign on the statewide level.
- Conduct a statewide "Drive Sober or Get Pulled Over" campaign in conjunction with the national campaign.
- Continue to support the University of Alabama Center for Advanced Public Safety (UACAPS) in their crash and traffic safety data analytical technical assistance throughout the year.
- Continue to conduct sustained evidence-based enforcement (E-BE) for impaired driving, speeding and seat belts throughout the year.

Specific countermeasures within each of these 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, Eighth Edition, 2015*; which can be viewed at:

http://www.safehomealabama.gov/SafetyTopics/GeneralTrafficSafety.aspx

To support the overall traffic safety efforts from an administrative point of view, the following administrative goals were established by AOHS to assure that the operation of the State's traffic safety program is well organized and continues to be implemented on the basis of firm evidence derived from data analyses:

- AOHS staff enrichment to assure that all are totally familiar with the most recent developments in traffic safety that are relevant to their roles. This consists of both formal and informal training, including meetings and conferences.
- Traffic records development in accord with FAST Act guidelines in the support of data collection and analytical efforts that include eCite, eCrash, MMUCC, driver license access, EMS-medical data integration, roadway data and vehicle data.
- The updating and maintenance of the http://www.SafeHomeAlabama.gov/ website in order to compile, present and coordinate all formal governmental and volunteer traffic safety efforts within Alabama, and to also present state of the practice information that can be used in countermeasure development.

It must be recognized that traffic safety cannot be limited to one agency – it is a joint effort involving many key partnerships throughout the state. This includes the following partners and their general responsibilities:

- 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.
- Alabama Law Enforcement Agency (ALEA) – this agency is now 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.
- 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).
- Strategic Highway Safety Plan (SHSP) Steering Committee – which also brings involvement and close concurrence with ALDOT and the following Federal agencies:
    - Federal Highway Administration (FHWA)
    - Federal Motor Carrier Safety Administration (FMCSA)
    - National Highway Traffic Safety Administration (NHTSA)
- Alabama Department of Public Health – providing data and information technology expertise for EMSIS and trauma data integration and use.
- Local law enforcement – including city police and county sheriffs, these partners are essential to all statewide and local enforcement programs.
- Media – providing continued support to inform the public of all selective enforcement and other initiatives.
- Traffic Records Coordinating Committee – a broad based committee that represents all developers and users of traffic safety information systems.
- State and local District Attorneys – involved to increase their level of readiness and proficiency for the effective prosecution of traffic related cases.
- 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

HSP Planning Process

This section gives the steps of the planning process applied by AOHS in creating the HSP. AOHS recognizes there are a large number of 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 Table 1, these "top three" demonstrate the greatest fatality-reduction potential for fatalities and severe injuries. Even if all of these goals for these various programs are met, there will still be an intolerably high death and injury toll, and the State embraces all of the principles of the national effort, Toward Zero Deaths (TZD).

As discussed above, the State of Alabama has a comprehensive, evidence-based enforcement plan that encompasses all traffic safety program areas. The following outlines the procedures that are followed in developing the countermeasure programs that are included in the HSP:

- A very general problem identification is initiated as soon as the close out of the previous year's data is completed, usually in the April-May time frame. The detailed procedure for the problem identification is given in Section 1.2.
- 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.
- The CARE hotspot analysis is run on these data for the subjects of interest, in this case speed, impaired driving and lack of seatbelt use.
- 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, how old and why questions as to how they can best be addressed.
- To assure that the 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.
- These plans are then combined to produce the specific action items that are implemented.

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

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 GR&SC and staff in assembling a tentative statewide planning document. Using the Critical Analysis Reporting Environment (CARE) program, a complete listing and illustration 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 their region, the regional coordinators are able to identify the problem areas in their region but 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 will continuously be evaluated and any necessary adjustments will be made.

The implementation of the Evidence-Based Enforcement Plan is demonstrated in the following sections of the Highway Safety Plan:
Sections 7.1.8 through 7.1.12 – Impaired driving and speed related crash hotspots – 402 funds
Section 7.4.1 – Alcohol related crashes hotspots – 405d funds
Section 8.5.2 – 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 for which is given on page 28.

1.0 EVIDENCE-BASED ENFORCEMENT ACTION PLAN

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

Table 1: Top Fatality Causes Alabama CY2016 Data

	Crash Type (Causal Driver)	Fatal	Fatal %	Injuries	Injury %	PDO	PDO %	Total
1.	Restraint Deficient*	464	4.38%	4,304	40.66%	5,818	54.96%	10,586
2.	Impaired Driving	232	3.91%	2,342	39.51%	3,353	56.57%	5,927
3.	Speeding	207	5.47%	1,720	45.48%	1,855	49.05%	3,782
4.	Obstacle Removal	169	2.69%	2,136	34.05%	3,969	63.26%	6,274
5.	Ped., Bicycle, School Bus	124	7.44%	957	57.44%	585	35.11%	1,666
6.	Pedestrian	120	14.69%	658	80.54%	39	4.77%	817
7.	License Status Deficiency	115	1.69%	2,216	32.54%	4,479	65.77%	6,810
8.	Mature – Age > 64	115	0.81%	3,126	22.12%	10,893	77.07%	14,134
9.	Motorcycle	108	6.41%	1,109	65.82%	468	27.77%	1,685
10.	Youth – Age 16-20	107	0.45%	5,405	22.78%	18,219	76.77%	23,731
11.	Distracted Driving	92	0.51%	4,742	26.43%	13,109	73.06%	17,943
12.	Non-pickup Truck Involved	56	1.09%	865	16.80%	4,228	82.11%	5,149
13.	Utility Pole	46	1.82%	937	37.15%	1,539	61.02%	2,522
14.	Fail to Conform to S/Y Sign	32	0.42%	2,187	28.88%	5,355	70.70%	7,574
15.	Vehicle Defects – All	21	0.54%	884	22.77%	2,978	76.69%	3,883
16.	Construction Zone	18	0.61%	653	22.26%	2,263	77.13%	2,934
17.	Vision Obscured – Env.	14	0.89%	428	27.14%	1,135	71.97%	1,577
18.	Fail to Conform to Signal	10	0.21%	1,455	31.18%	3,202	68.61%	4,667
19	Child Restraint Deficient*	5	0.18%	348	12.26%	2,485	87.56%	2,838
20.	Railroad Trains	5	7.81%	33	51.56%	26	40.63%	64
21.	Bicycle	4	0.84%	207	43.49%	265	55.67%	476
22.	School Bus	0	0.00%	96	16.33%	492	83.67%	588
23.	Roadway Defects – All	0	0.00%	28	24.14%	88	75.86%	116

* 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.

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. 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 expected that any given countermeasure will reduce. Thus, an issue with a lower number of fatalities would become optimal to address if a lower cost countermeasure would reduce a larger number of its crashes.

The AOHS Highway Safety Plan (HSP), including Table 1, have been incorporated into the Alabama Department of Transportation (ALDOT) Strategic Highway Safety Plan (SHSP) that is mandated by FHWA and the FAST Act. This reflects the statewide agreement with the goals and approaches being taken by AOHS in the use of Table 1 as a planning tool at the highest level. AOHS has worked collectively with ALDOT in goal setting for the common goals in 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 and equipment, but most importantly, personnel.

The eCrash system, which 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, and 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.

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 to intelligent decision-making. Once the high-level decisions are made regarding which of the crash types will be addressed, further analyses are 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.

1.2 Evidence-Based Traffic Safety Enforcement (E-BE) Program

As discussed above, 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 section will continue with a discussion of the analyses performed, the deployment of resources and the process for continuous follow-up and improvement.

1.2.1 An Analysis of Crashes, Crash Fatalities & Areas of Highest Risk

As explained above, the highest level of problem identification analysis is given by Table 1, which 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 both causes and increases the severity of crashes. It should also be noticed that 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:

- 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;
- Locations were defined by specific criteria depending on roadway classification;
- 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;
- The list was prioritized by crash frequency severity;
- 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 in Section 6.0.

Each of the four regional coordinators use these specifications as the basis for their plans for the upcoming year. It was 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.

1.2.2 Deployment of Resources Based on that Analysis

The effective allocation of resources will lead to a 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 a defined hotspot 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 will be used are:

- Conduct four local hotspot Evidence-Based Enforcement (E-BE) projects, one within each of the CTSP regions.
- Conduct a statewide E-BE project in conjunction with the Alabama Law Enforcement Agency (ALEA).
- 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.
- Participate in the national "Click It or Ticket" Campaign on the statewide level.
- Conduct a statewide "Drive Sober or Get Pulled Over" Campaign in conjunction with the national campaign.
- Conduct sustained E-BE for impaired driving, speeding, and seat belts throughout the year.

The enforcement efforts will be accompanied by a PI&E campaigns that 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. This part of the campaign will consist of:

- Development of marketing approach based on Nielsen and Arbitron ratings and targeted primarily towards the 18-34 male age group.
- 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.
- Management of public relations efforts including press releases and special media events to stimulate media coverage and alert the public to the campaign.
- 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.
- 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.

1.2.3 Process of Continuous Follow-up and Adjustment of Plan

AOHS monitors law enforcement agencies activity reports monthly to determine if adjustments are needed for their plans. When activity reports are received, they will be 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. 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 that include the enforcement plans.

As an introduction to the remainder of this plan:

- Section 2 presents the Vision, Ideals and Mission and are given in the next section of the plan, which gives the basis for the goals and strategies;
- Sections 3 through 5 presents the Goals and Strategies with text, tables and graphs.
- Section 6 contains the statewide results of the evidence-based speed and impaired hotspot location analysis, which is made available to each CTSP/LEL Coordinator along with information specific for their regions;
- Section 7 contains the planned activities for all projects to be conducted by AOHS during FY 2018;
- Section 8 contains the Occupant Protection Plan, which satisfies NHTSA requirements in that regard and shows (1) how evidence-based enforcement has been integrated into the planning process, and (2) demonstrates analytics applied to program evaluation. The plan also includes
    - Section 8.8 which gives the location hotspots for the evidence-based restraint deficiency hotspots, and
    - Section 8.9 which presents non-location restraint related problem identification;
- Section 9.0 contains the Alabama Performance Report.
- Section 10.0 contains the Alabama Traffic Safety Activity Measures.

2.0 VISION, IDEALS, AND MISSION

2.1 Vision

AOHS has worked with the Traffic Safety community in the State to establish the following Vision Statement that has remained stable for the past five years:

> **To eliminate all traffic related fatalities by (1) creating the safest possible surface transportation system, and (2) involving all organizations and individuals within the state who have traffic safety interests in a cooperative effort.**

It is recognized that this vision is not going to be accomplished absolutely over the short term; however, its relative attainment can be measured in terms of crash, injury and fatality rates (per million vehicle mile). A fair assessment can be accomplished by comparing these metrics for Alabama with the following:

- Other states in NHTSA Region 4,
- Other states of comparable rural-urban distributions,
- National data, and
- By considering the changes in the above metrics over time.

2.2 Ideals

The following ideals provide the guiding principles in moving toward the vision given above:

- *Saving Lives.* Preserve the lives of all users of the Alabama surface transportation system by minimizing the frequency and severity of all potentially fatal crashes, regardless of the countermeasure type or the organization that has primary responsibility for its implementation. Alabama's commitment to this ideal can be seen in the table in Section 2.3, which shows, with very few exceptions, the steady decline in the state's fatality rate since 1987.
- *Reduction in Suffering.* Reduce suffering and property loss resulting from injury and property damage only crashes.
- *Focus on speed, impaired driving and restraint deficient hotspots.* Crashes caused by excessive speed and impaired driving were determined to be the largest driver-caused problems, and the lack of proper restraint use was seen to be the largest severity increase problem. Plans developed by the state's safety coordinators reflect this focus, and funding is concentrated on the corresponding hotspot crash locations that have been identified.
- *Teamwork and Diversity.* All highway users and user groups are encouraged to provide input to the decision-making process, and all sub-disciplines are given the opportunity to provide input and information.

2.3 Fatality Number and Rate by Year

Alabama's traffic fatality counts and fatality rates (per 100 million vehicle miles traveled) since 1987 show a dramatic decrease since that time. The fatality rate has decreased by 46% over this time period.

Year	Rate	Fatalities	Miles Driven (100 MVMT)
1987	2.98	1116	374.37
1988	2.58	1023	396.84
1989	2.52	1028	407.65
1990	2.64	1118	423.47
1991	2.59	1110	429.24
1992	2.26	1033	457.62
1993	2.20	1040	472.03
1994	2.21	1081	489.56
1995	2.20	1113	506.28
1996	2.22	1142	514.33
1997	2.23	1190	534.58
1998	1.94	1071	552.05
1999	2.03	1148	564.13
2000	1.74	986	565.71
2001	1.76	998	567.08
2002	1.80	1038	575.32
2003	1.71	1001	586.33
2004	1.96	1154	588.62
2005	1.92	1148	596.62
2006	2.00	1207	603.94
2007	1.81	1110	613.13
2008	1.63	969	591.48
2009	1.38	848	613.00
2010	1.34	862	641.51
2011	1.38	894	649.14
2012	1.33	865	650.38
2013	1.31	852	650.38
2014	1.25	820	656.11
2015	1.26	849	673.81
2016*	1.60	1088	680.55

The downward trend in fatality numbers and rate after 2006 and before 2009 can be credited to safety improvements both in the vehicle and the driver. However, after 2009 the effect of higher gasoline and alcoholic beverage prices and the recession had a leveraged effect on younger drivers and the economically disadvantaged in the rural areas, many of whom drive older vehicles. It is reasonable to expect a regression to the mean as the economy recovered. However, other factors have intervened in the interim that have caused the number of fatalities to rise dramatically in the state.

*State Data

Given in no special order of their criticality:

- Distracted driving and walking;
- Increased speeds due largely to the low number of patrol officers;
- Increased drug use while driving and walking (including prescription drugs), which has been shown in FARS data studies of 2016 data to be greater than alcohol in crash death causation.

To many traffic safety practitioners these causes seem out of the reach of the current resources that are being applied. This does not mean that current efforts are ineffective, and evidence is clear that without the current efforts the fatality rate would in all probability double. The challenges from the above causes must be met in the coming year. Alabama will not be satisfied with even one death on the roadway, and the state will continue to put forth a concerted effort to assure that traffic safety resources are utilized to their maximum capabilities to sustain and accelerate the trend toward zero deaths.

2.4 Mission

To promote movement toward its 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.

3.0 PERFORMANCE MEASURE GOALS

3.1 Process for Developing Goals and Performance Measures

Goal and performance measure development has been a process initiated by AOHS more than a decade ago and updated annually as the traffic safety picture has changed. Generally, it has involved the AOHS staff and participants from UA-CAPS to refine the performance measure targets each year. At the same time, they were also directly involved in the development and selection of 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 for FY 2018 will be largely focused on the problem locations discussed and defined in Hotspot Listings in Section 6 and Section 8.8. In addition, AOHS will continue participation in 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.

In addition to AOHS and UA-CAPS, these programs have received extensive review and recommendations by those who developed the state's SHSP. The overall goals set in the SHSP for the State of Alabama are complementary to, and consistent with, those presented in Section 3.3 below.

These goals 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.

3.2 Statewide Statistics

The tables in Sections 3.2.1 and 3.2.2, present a multi-year summary, and the item numbers within the tables are used for the goal definitions. Unless otherwise noted, the number of fatalities for these tables and the goals analyses were provided by FARS.

3.2.1 Statewide Statistics Table for 2010-2015

	2010	2011	2012	2013	2014	2015	2016*	2018** Baseline
C-1 Number of Traffic Fatalities (FARS)	862	895	865	853	820	849	1,088	895
C-2 Number of Serious Injuries in Traffic Crashes (State Crash File) *	10,544	9,904	8,974	8,558	7,960	8,540	8,152	8,787
C-3 Fatalities/VMT (FARS/FHWA) • Total_____ • Urban_____ • Rural_____	 1.34 0.97 1.72	 1.38 1.09 1.70	 1.33 1.01 1.69	 1.31 .82 1.85	 1.25 .72 1.97	 1.26 .64 1.70	1.60	1.35
C-4 Number of Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions (FARS)	394	382	354	369	351	355		362
C-5 Number of Fatalities in crashes involving driver or motorcycle operator with a BAC of .08 and above (FARS)	264	261	240	259	265	247		254
C-6 Number of Speeding-Related Fatalities (FARS)	316	298	273	253	237	236		259
C-7 Number of Motorcyclist Fatalities (FARS)	86	98	97	80	65	67		81
C-8 Number of Unhelmeted Motorcyclist Fatalities (FARS)	5	10	10	1	10	9		8
C-9 Number of Drivers Age 20 or Younger Involved in Fatal Crashes (FARS)	140	136	139	102	91	122		118
C-10 Number of Pedestrian Fatalities (FARS)	61	79	77	59	96	98		82
C-11 Number of Bicycle Fatalities (FARS)	6	5	9	6	9	9		8
B-1 Observed Seat Belt Use for Passenger Vehicles, Front Seat Outboard Occupants (State Survey)	91.4%	88.0%	89.5%	97.3%	95.7%	93.3%	92.0%	93.6%
Speed Hotspots*	63	45	47	37	33	30	37	45
Speed Fatal Crashes*	212	188	179	165	141	142	207	182
Speed Injury Crashes*	1,883	1,832	1,779	1,663	1,529	1,668	1,700	1,731
Impaired Driving Hotspots*	143	144	179	198	176	166	160	167
Impaired Driving Fatal Crashes*	210	217	186	191	187	207	232	204
Impaired Driving Injury Crashes*	2,798	2,647	2,661	2,490	2,191	2,425	2,342	2,522

* State Data

** Baselines are 5-year averages of the 2011-2015 data except for 2016* data which uses years 2012-2016.

3.2.2 Statewide Statistics Table for 5-Year Moving Averages 2010-2015

	2010	2011	2012	2013	2014	2015
C-1 Number of Traffic Fatalities (FARS)	999	937	888	864	859	856
C-2 Number of Serious Injuries in Traffic Crashes (State Crash File) *	17,008	13,683	10,985	8,660	8,624	8,619
C-3 Fatalities/VMT (FARS/FHWA)						
• Total_____	1.63	1.51	1.41	1.35	1.32	1.30
• Urban_____	1.15	1.1	1.06	0.99	0.92	.85
• Rural_____	2.13	1.93	1.78	1.73	1.78	1.78
C-4 Number of Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions (FARS)	466	429	392	373	370	362
C-5 Number of Fatalities in crashes involving driver or motorcycle operator with a BAC of .08 and above (FARS)	320	297	273	258	261	258
C-6 Number of Speeding-Related Fatalities (FARS)	431	377	332	293	275	258
C-7 Number of Motorcyclist Fatalities (FARS)	90	89	91	87	85	81
C-8 Number of Unhelmeted Motorcyclist Fatalities (FARS)	9	9	9	7	7	8
C-9 Number of Drivers Age 20 or Younger Involved in Fatal Crashes (FARS)	173	155	144	13	91	122
C-10 Number of Pedestrian Fatalities (FARS)	68	68	70	68	74	82
C-11 Number of Bicycle Fatalities (FARS)	7	6	6	6	7	8
B-1 Observed Seat Belt Use for Passenger Vehicles, Front Seat Outboard Occupants (State Survey)	86.50%	87.60%	89.00%	91.20%	92.40%	92.76%

* State Data

3.3 Traffic Safety Performance Measures for FY 2018

3.3.1 General Considerations

There are several items of consideration that are essential to the understanding of the rationale for the goals and performance measures given in this as well as the following subsections. Many of the items below impact several of the performance measures. To reduce redundancy, they are included here. In those subsequent sections, when a given item applies, it will be referenced by its item number in the following list:

1. **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 tables that demonstrate the metrics over the past five available calendar years (2012-2016). Items C1, C2 and C3a 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 C1, C2, and C3a 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.**

2. **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.

3. **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 2015, requiring (for example) that the estimates of 2016, 2017 and 2018 all be based on an extrapolation of 2011 through 2015. (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 to negative) from the established trend. Nevertheless, these estimates are presented since they provide the *best data* upon which to make and refine the estimates.

4. **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, alcohol, 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 2018 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 a separate item below.

5. **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 FY 2018 that no A injury statistics prior to 2011 would be used in the calculations.

6. **Motorcycle fatalities.** The rationale with regard to 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.

7. **Seat belt use.** The projection for 2018 is based upon the five year rolling average that includes the new method for estimating seat belt used as prescribed by NHTSA.

8. **Five-year average goals.** Most of the crash related goals are set differently from years prior to 2014. Our 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 is computed at the end of 2018. The graphs on the following pages display the five-year rolling averages: however, the numbers listed above the charts are the single year number for each year.[1]

9. **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. Definitively shown was that those who were killed were 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.

10. **Distracted Driving (DD) and walking.** While distracted driving has not been broken out as a separate subject for goal setting, 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* 90 fatal crashes 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 AL Fatalities article on SHA:
    http://www.safehomealabama.gov/PlansAnalysis/FARSandALFatalities.aspx

11. **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

[1] All charts shown on the following pages were developed using annual FARS data, with the exception of the serious injuries numbers, which were taken from state crash data files.

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 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/SafetyTopics/DriverIssues/DistractedDriving.aspx

12. **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, thus establishing an upward trend. The decision was made to project the 2016 performance measure levels into 2017, and to base the goals on that data. The rationale for this is that if the state can maintain the 2016 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 we are still on the upward trend.

13. **Assumptions for goals C-1, C-2, and C-3a.** The reasoning behind the slight upward trend in fatalities from 2016 has to do with the leveraging effect that slight economic changes have on those drivers who are 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 employment rate that is currently at 4.9%. We are assuming that over the next five years that relatively full employment will be attained that will result in a reduction of this rate to 4.0%. Increases will also likely to 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 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 Falls to 4.9 Percent"* June 16, 2017.

3.3.2 C-1: Number of Traffic Fatalities (FARS)

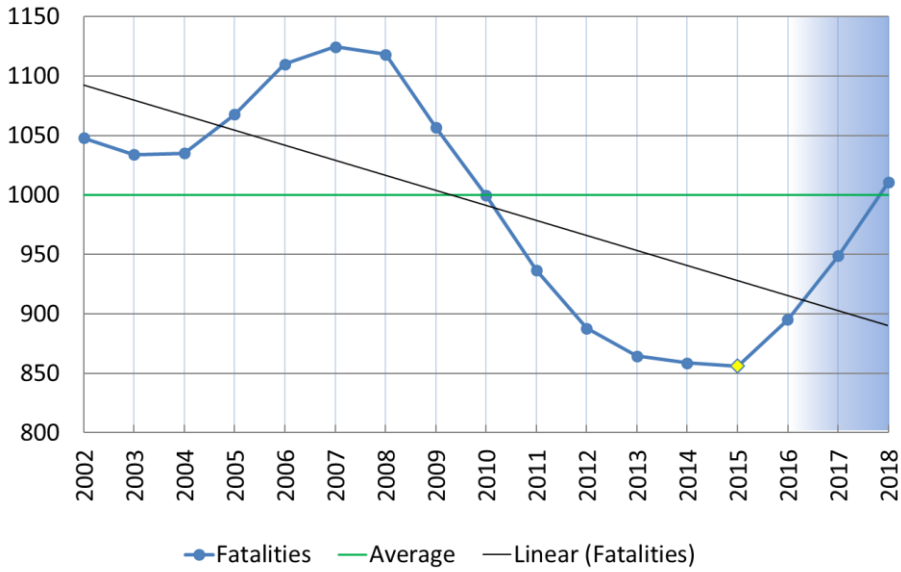
Baseline Value:	856	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	1,010	Target Start Year:	2014	Target End Year:	2018

Goal Statement: Do not allow traffic fatalities to increase more than 17.99% percent from the five-year baseline average of 856 (2011-2015) to 1,010 by 2018*. **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**.

Justification: Based on analysis of previous 5-year averages and trends in more recent state crash data, AOHS has projected a realistic goal for the Number of Traffic Fatalities of 1010. 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 1088 in 2016. The goal was based on projected data to stem this increase with a view of reversing it in the coming years. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 1 through 4 and 13.

2011	2012	2013	2014	2015	Baseline	Goal
895	865	852	820	849	856	1,010

5-Year Rolling Averages of Traffic Fatalities



3.3.3 C-2: Number of Severe Injuries in Traffic Crashes

(State crash data files – most severe category: "A" Injuries.)

Baseline Value:	8,787	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	8,369	Target Start Year:	2014	Target End Year:	2018

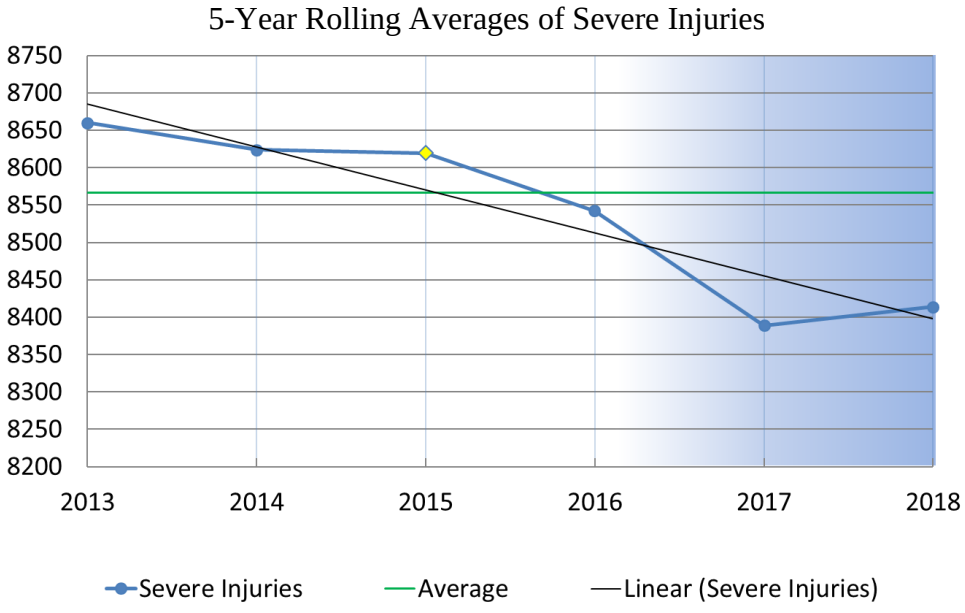
Goal Statement:

Reduce serious injuries in traffic crashes by 4.76 percent from the five year baseline average of 8,787 (2011-2015) to 8,369 by 2018*. **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**.

Justification:

Based on analysis of previous 5-year averages and trends in more recent state crash data, AOHS has projected a realistic goal for the Number of Severe injuries in Traffic Crashes of 8,369. The goal was based on projected data to stem this increase with a view of reversing it in the coming years. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 1 through 3, 5 and 13.

2011	2012	2013	2014	2015	Baseline	Goal
9,904	8,974	8,558	7,960	8,540	8,787	8,369



3.3.4 C-3a: Total Fatality Rate/VMT (FARS/FHWA)

Baseline Value:	1.30	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	1.49	Target Start Year:	2014	Target End Year:	2018

Goal Statement:

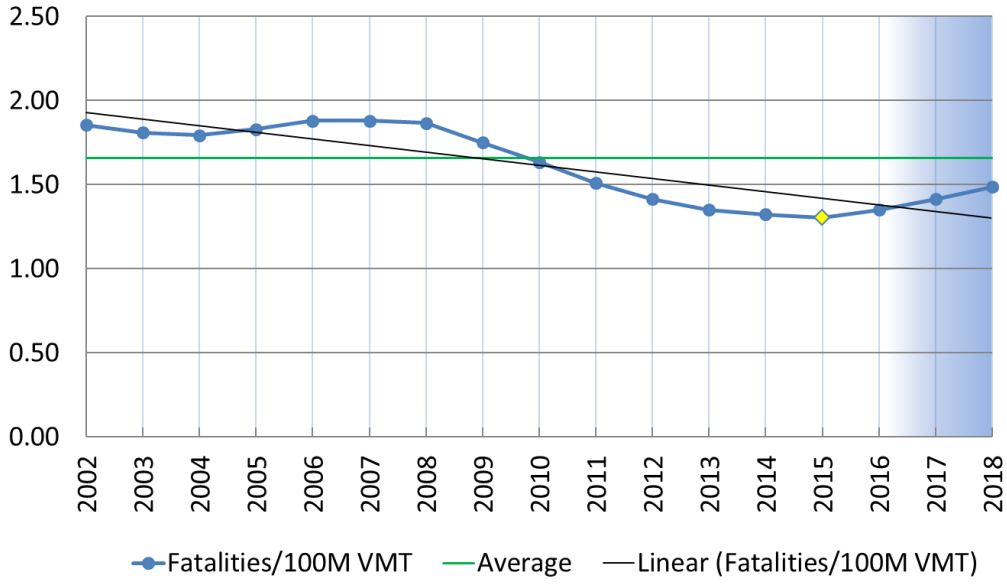
Do not allow Total Fatality Rate to increase more than 14.62% percent from the five-year baseline average of 1.30 (2011-2015) to 1.49 by 2018*. **This goal was mutually agreed upon by the Alabama Office of Highway Safety, the Strategic Highway Safety Plan steering committee and the Highway Safety Improvement Plan committee**.

Justification:

Based on analysis of previous 5-year averages and trends in more recent state crash data, AOHS has projected a realistic goal for the Total Fatality Rate/VMT of 1.49. 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 1088 in 2016, as stated above for the fatalities goal. It is based on an assuption 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. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 1 through 4 and 13.

2011	2012	2013	2014	2015	Baseline	Goal
1.38	1.33	1.31	1.25	1.26	1.30	1.49

5-Year Rolling Averages of Total Fatalities/100 MVMT



3.3.5 C-3b: Rural Fatality Rate/VMT (FARS)

Baseline Value:	1.78	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	1.50	Target Start Year:	2014	Target End Year:	2018

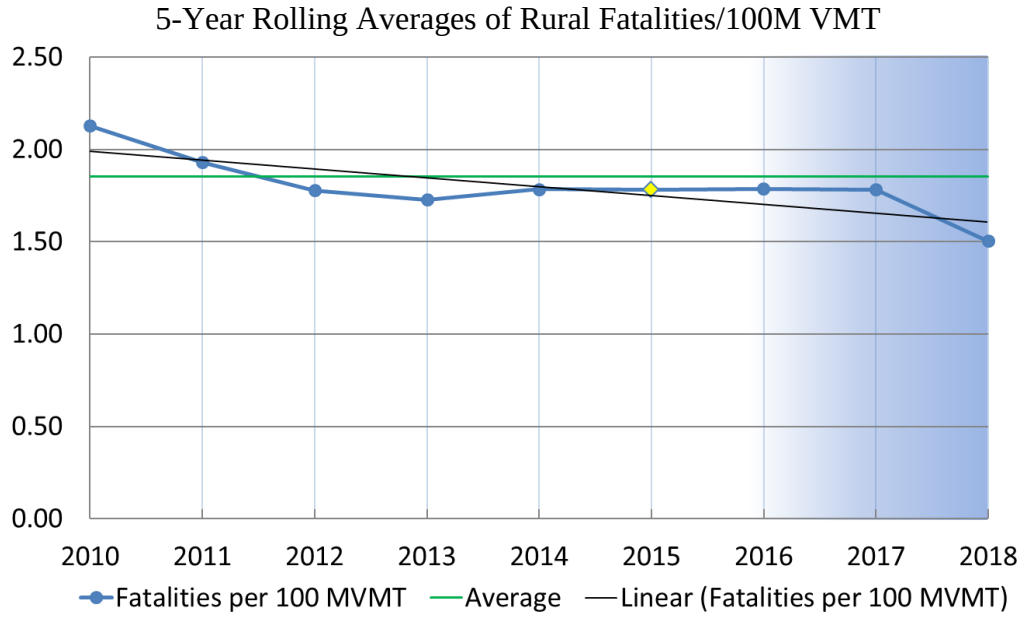
Goal Statement:

Reduce the rural fatality rate per 100MVMT by 15.73 percent from the five-year baseline average of 1.78 (2011-2015) to 1.50 by 2018*.

Justification:

Based on analysis of previous 5-year averages and trends in more recent state crash data, AOHS has projected a realistic goal for the Rural Fatality Rate of 1.50. This goal reflects the realizations that fatal crashes in general have increased from a recent low of 820 in 2014 to 848 in 2015, and 1088 in 2016. The goal was based on projected data to stem this increase with a view of reversing it in the coming years. The rural fatal crash to all rural crashes ratio is 1 in every 66 crashes, which is about five times that of the corresponding urban ratio. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4 and 12.

2011	2012	2013	2014	2015	Baseline	Goal
1.7	1.69	1.85	1.97	1.7	1.78	1.50



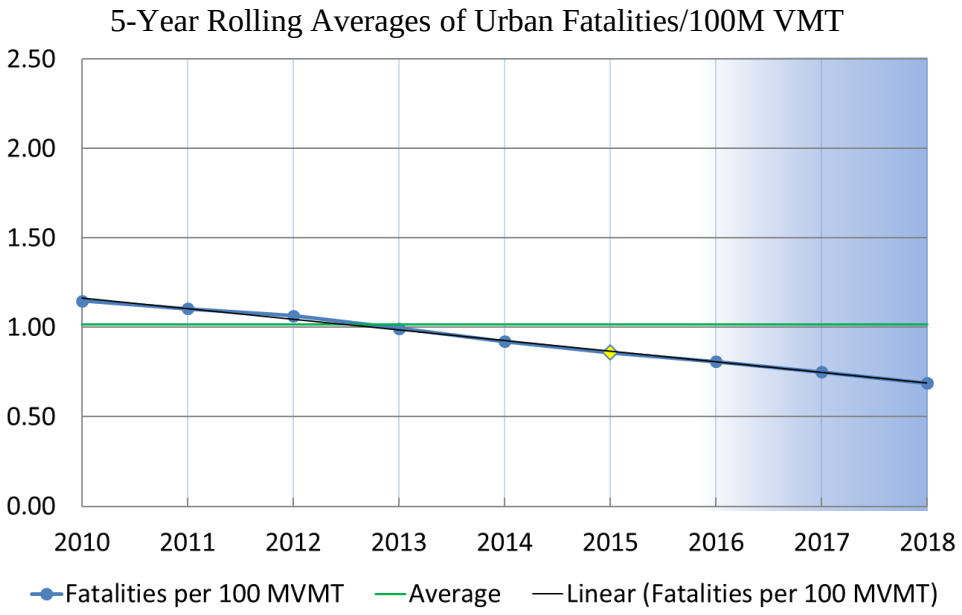
3.3.6 C-3c: Urban Fatality Rate/VMT (FARS)

Baseline Value:	.85	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	.69	Target Start Year:	2014	Target End Year:	2018

Goal Statement: Reduce the urban fatality rate per 100M VMT by 18.8 percent from the five-year baseline average of 0.85 (2011-2015) to 0.69 by 2017*.

Justification: Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal for the Urban Fatality Rate of 0.69. This goal reflects the realizations that fatal crashes in general have increased from a recent low of 820 in 2014 to 848 in 2015, and 1088 in 2016. The goal was based on projected data to stem this increase with a view of reversing it in the coming years. The urban fatal crash to all urban crashes ratio is 1 in every 319 urban crashes, which is only about 1/5th that of the corresponding rural ratio. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4 and 12.

2011	2012	2013	2014	2015	Baseline	Goal
1.09	1.01	.82	.72	.64	.85	.69



3.3.7 C-4: Number of Unrestrained Passenger Vehicle Occupant Fatalities All Seat Positions (FARS)

Baseline Value:	362	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	336	Target Start Year:	2014	Target End Year:	2018

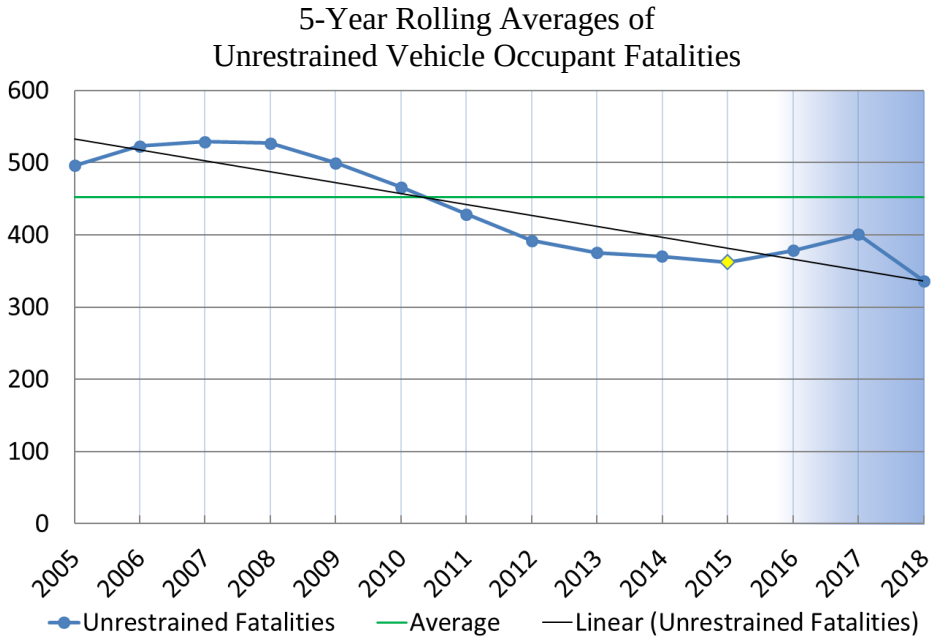
Goal Statement:

Reduce the unrestrained passenger vehicle occupant fatalities by 7.18 percent from the five-year baseline average of 362 (2011-2015) to 336 by 2018*.

Justification:

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal for the Unrestrained Passenger Vehicle Occupant Fatalities of 336. 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. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4, 7, and 12.

2011	2012	2013	2014	2015	Baseline	Goal
382	354	369	351	355	362	336



3.3.8 C-5: Number of Fatalities with a BAC of .08 and Above Crashes Involving Driver or Motorcycle Operator (data shown as Alcohol-Impaired Driving Fatalities in STSI-FARS)

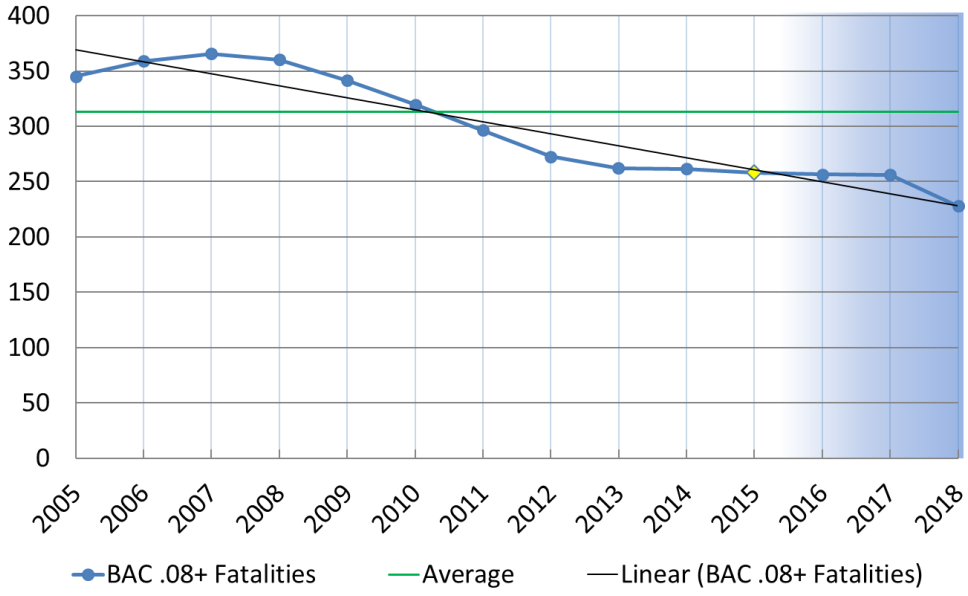
Baseline Value:	254	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	228	Target Start Year:	2014	Target End Year:	2018

Goal Statement: Reduce the alcohol-impaired driving fatalities by 11.63 percent from the five-year baseline average of 258 (2011-2015) to 228 by 2018*.

Justification: Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal for the fatalities involving drivers with a BAC of .08 and above of 228. Alcohol impaired driver fatalities trended downward over the 2012-2015 time frame, but they increased with the overall increase in fatalities in 2016. This goal has been set to reverse that sudden increase, and the anticipation is that the impaired driving programs will be successful in accomplishing this. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4, 6, 11, and 12.

2011	2012	2013	2014	2015	Baseline	Goal
261	240	259	265	247	254	228

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



3.3.9 C-6: Number of Speeding-Related Fatalities (FARS)

Baseline Value:	259	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	257	Target Start Year:	2014	Target End Year:	2018

Goal Statement:

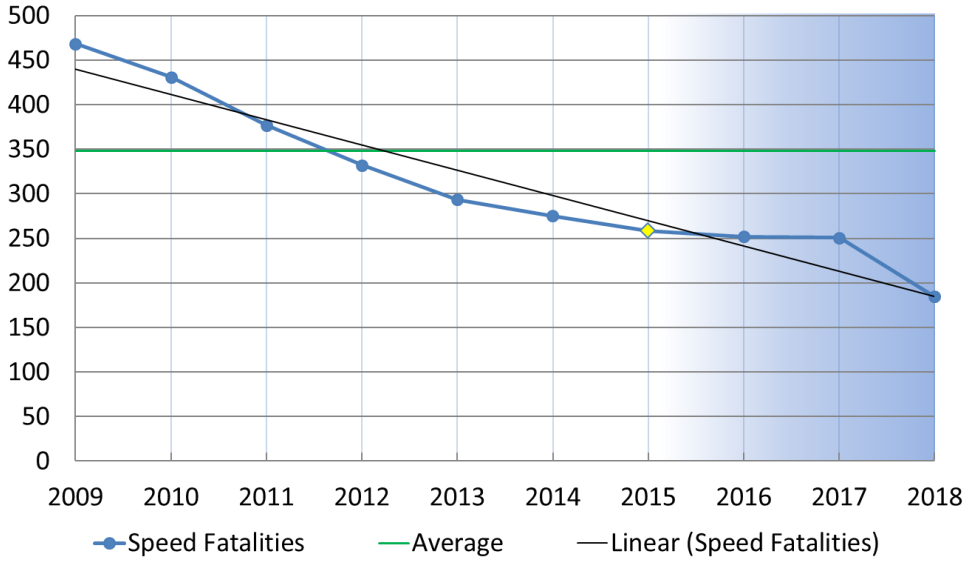
Reduce the speeding-related fatalities by .77 percent from the five-year baseline average of 259 (2011-2015) to 257 by 2018*.

Justification:

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal for the speeding-related fatalities of 257. 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. This goal has been set to reverse that sudden increase, and the anticipation is that the selective enforcement programs will be successful in accomplishing this. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4 and 12.

2011	2012	2013	2014	2015	Baseline	Goal
298	273	253	237	236	259	257

5-Year Rolling Averages of Speeding-Related Fatalities



3.3.10 C-7: Number of Motorcyclist Fatalities (FARS)

Baseline Value:	81	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	94	Target Start Year:	2014	Target End Year:	2018

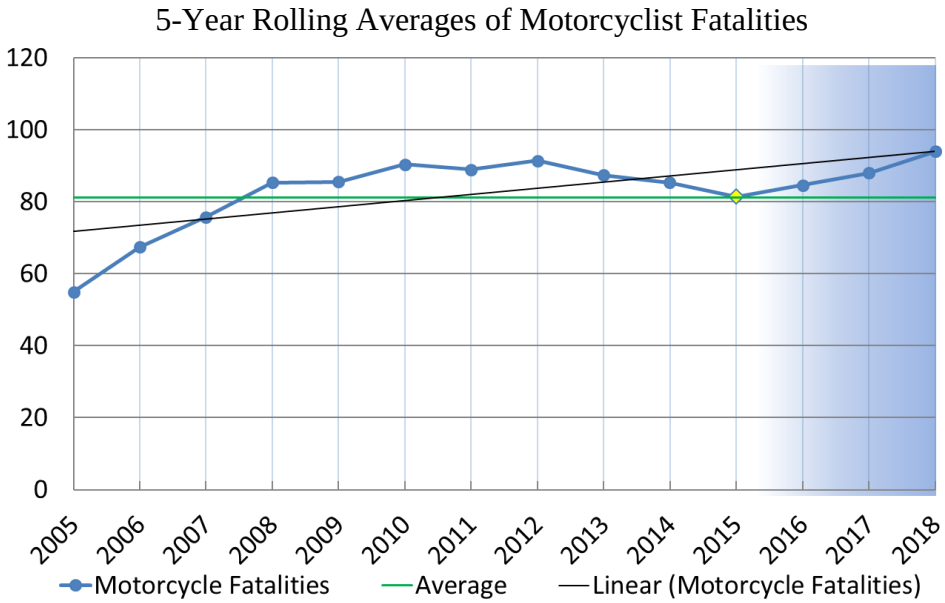
Goal Statement:

Do not allow motorcyclist fatalities to increase more than 16.05% percent from the five-year baseline average of 81 (2011-2015) to 94 by 2018*.

Justification:

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal for the Motorcyclist Fatalities of 94. Motorcycle fatalities trended downward over the 2012-2015 time frame, but they increased with the overall increase in fatalities in 2016. This goal has been set to reverse that sudden increase, and the anticipation is that the motorcycle programs will be successful in accomplishing this. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4, 6, and 12.

2011	2012	2013	2014	2015	Baseline	Goal
98	97	80	65	67	81	94



3.3.11: C-8: Number of Un-helmeted Motorcyclist Fatalities (FARS)

Baseline Value:	8	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	8	Target Start Year:	2014	Target End Year:	2018

Goal Statement:

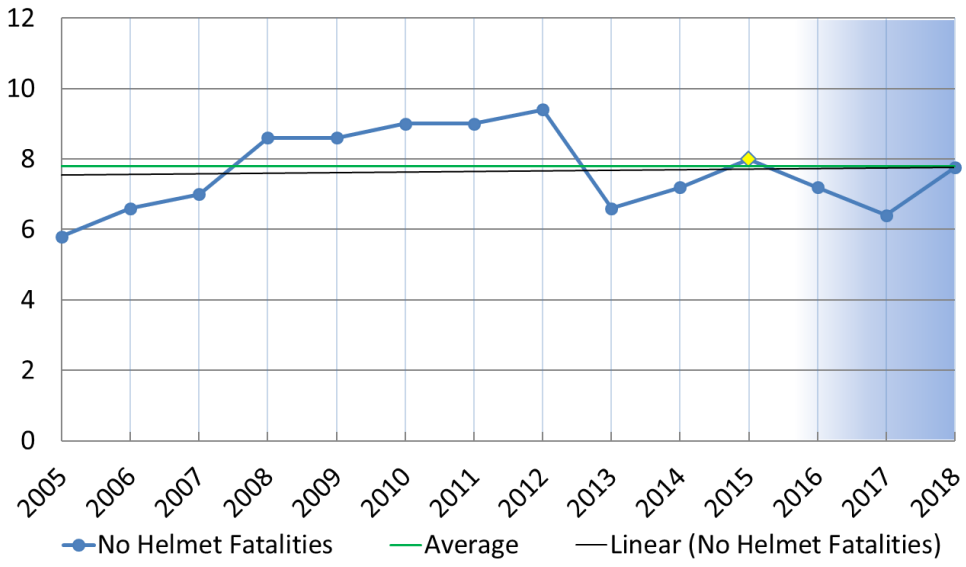
Maintain the un-helmeted motorcyclist fatalities at the five-year baseline average of 8 (2011-2015) by 2018*.

Justification:

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal for the un-helmeted motorcyclist fatalities of 8. 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, and the anticipation is that the motorcycle programs will be successful in accomplishing this. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4, 6, and 12.

2011	2012	2013	2014	2015	Baseline	Goal
10	10	1	10	9	8.0	8

5-Year Rolling Averages of Un-Helmeted Motorcyclist Fatalities



3.3.12 C-9: Number of drivers age 20 or younger involved in Fatal Crashes (FARS)

Baseline Value:	118	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	115	Target Start Year:	2014	Target End Year:	2018

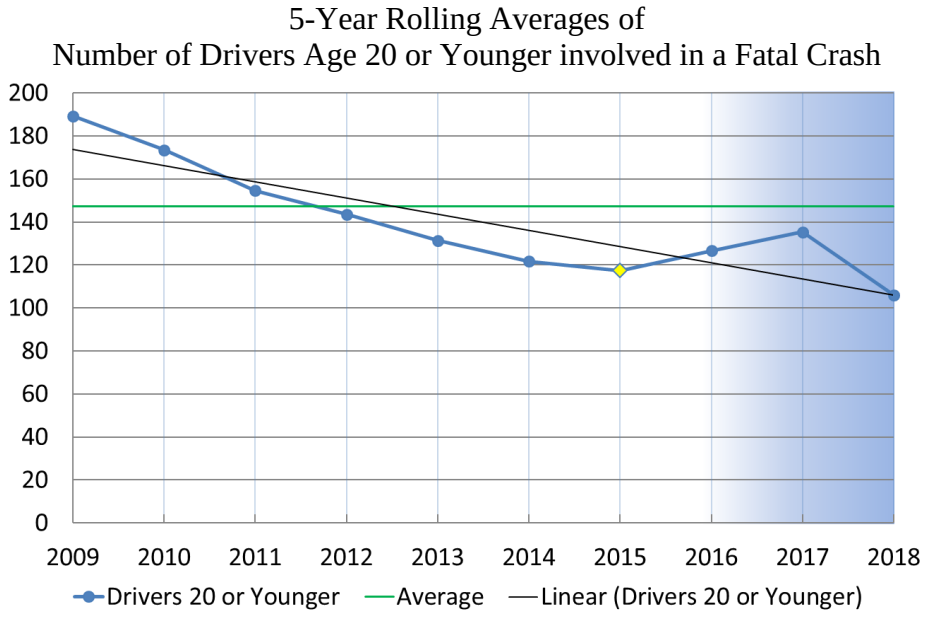
Goal Statement:

Reduce the number of drivers age 20 or younger involved in fatal crashes by 2.5 percent from the five-year baseline average of 118 (2011-2015) to 115 by 2018*.

Justification:

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal for the drivers age 20 or younger involved in Fatal Crashes of 115. 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. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4 and 12.

2011	2012	2013	2014	2015	Baseline	Goal
136	139	102	91	122	118	115



3.3.13 C-10: Number of Pedestrian Fatalities (FARS)

Baseline Value:	82	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	82	Target Start Year:	2014	Target End Year:	2018

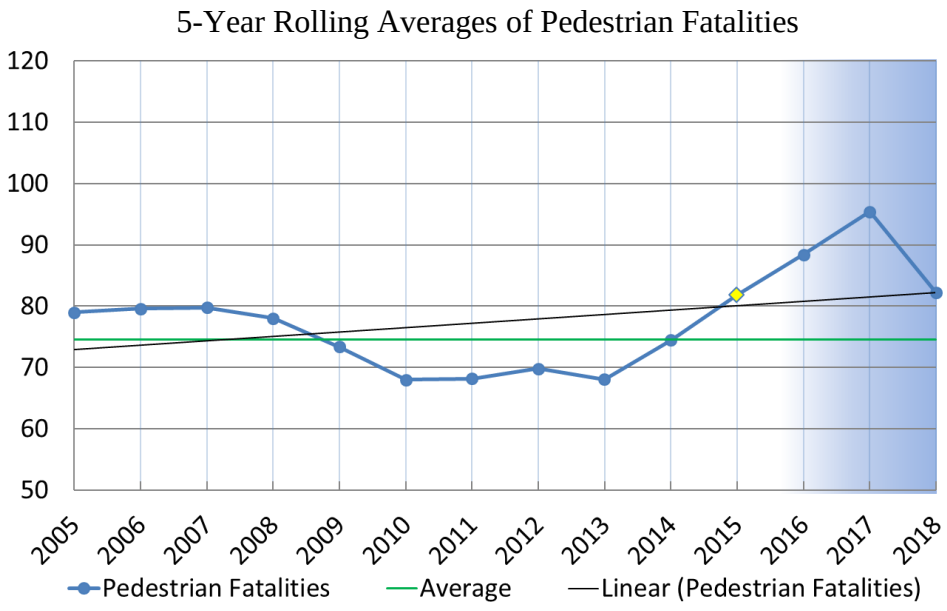
Goal Statement:

Maintain the number of pedestrian fatalities at the five-year baseline average of 82 (2011-2015) by 2018*.

Justification:

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal for the pedestrian fatalities of 82. 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. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4, 9, 10, 11, and 12.

2011	2012	2013	2014	2015	Baseline	Goal
79	77	59	96	98	82	82



3.3.14 C-11: Number of Bicyclist Fatalities (FARS)

Baseline Value:	8	Baseline Start Year:	2011	Baseline End Year:	2015
Target Value:	6	Target Start Year:	2014	Target End Year:	2018

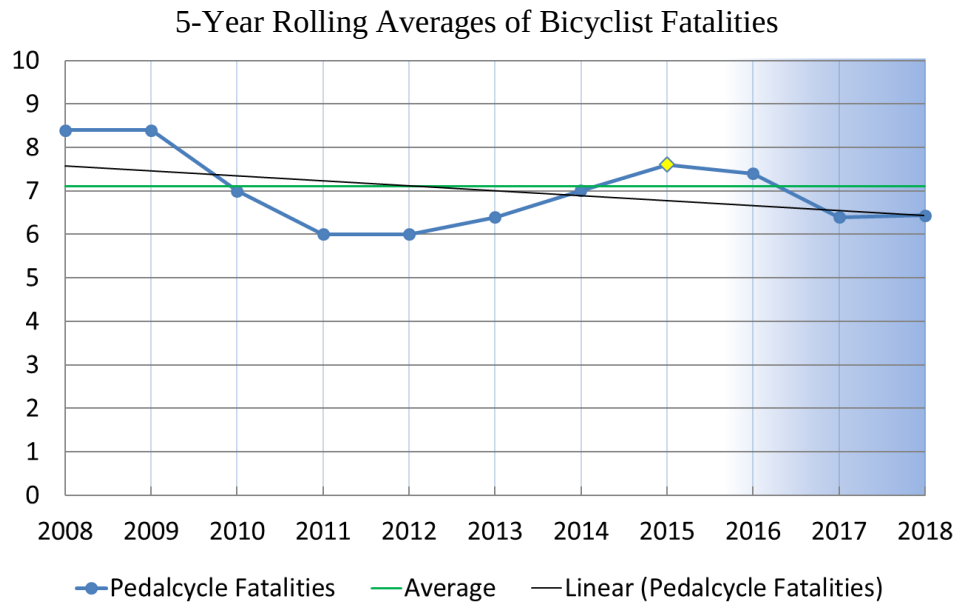
Goal Statement:

Reduce the number of bicycle fatalities by 25 percent from the five-year baseline average of 8 (2011-2015) to 6 by 2018*.

Justification:

Based on analysis of previous 5-year averages and trends in recent state crash data, AOHS has projected a realistic goal for the bicyclist fatalities of 6. A recent study of pedestrian 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 the pedestrian programs will be successful in bringing the number back down. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4 and 12.

2011	2012	2013	2014	2015	Baseline	Goal
5	9	6	9	9	8	6



3.3.15 B-1: Observed Seat Belt Usage for Passenger Vehicles Front Seat Outboard Occupants (State Survey)

Baseline Value:	93.6%	Baseline Start Year:	2012	Baseline End Year:	2016
Target Value:	93.6%	Target Start Year:	2014	Target End Year:	2018

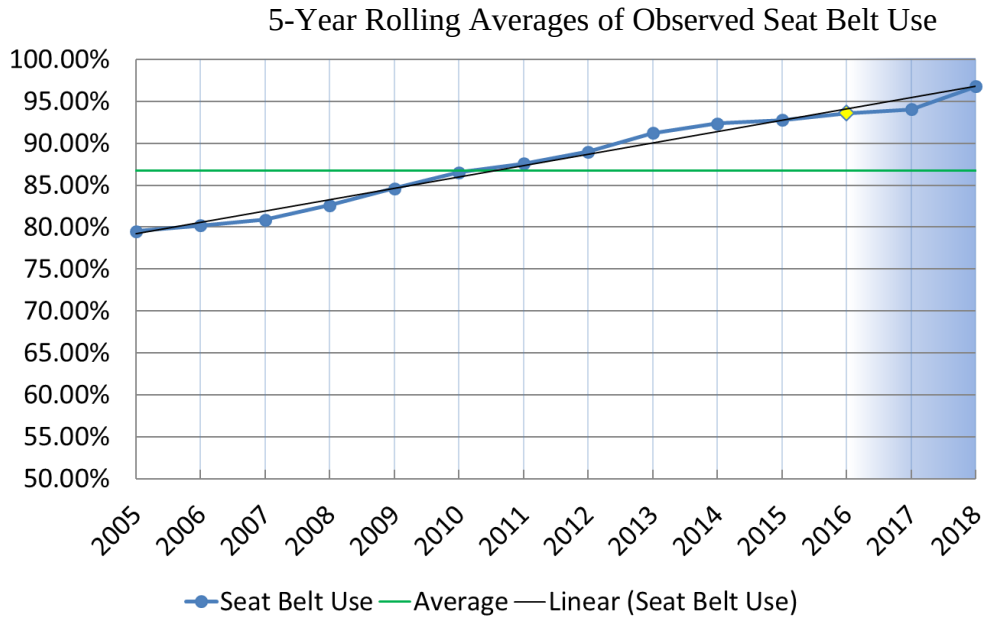
Goal Statement:

Maintain the observed seat belt usage at the five-year baseline average (2012 -2016) of 93.6% in 2018*.

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 for the observed seat belt usage of 93.6 %. Restraint deficient fatalities were quite stable over the 2011-2015 time frame, but increased 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. More detailed rationale for understanding the data behind this estimate is given in Section 3.3.1 items 4, 7, and 12.

2012	2013	2014	2015	2016	Baseline	Goal
89.5	97.3	95.7	93.3	92.0	93.6	93.6



*Five Year Average Goal

4.0 TRAFFIC SAFETY ACTVITY MEASURES

4.1 A-1: Number of seat belt citations

2012	2013	2014	2015	2016
30,384	25,536	36,120	17,801	10,575

The total number of seat belt citations for 2016 was 10,575.

4.2 A-2: Number of impaired driving arrests

2012	2013	2014	2015	2016
2,021	2,508	3,848	2,381	906

The total number of impaired driving arrests in 2016 was 906.

4.3 A-3: Number of speeding citations

2012	2013	2014	2015	2016
42,067	57,670	63,890	64,719	30,807

The total number of speeding citations in 2016 was 30,807.

5.0 GOALS AND STRATEGIES

5.1 High Level Strategic Program Goals

The highest level strategic program goal is as follows:

To reduce the three-year average annual number of fatalities by 2% per year over the next 25 years (i.e., using 2011 as a base year, through 2035).

This is a 25-year goal that was announced for the FY 2012 HSP on the CY 2011 baseline. Because of the long-term nature of this goal, annual reviews have to this point led to the conclusion that there is no reason to alter this approach based on recent findings.

This goal is consistent with the state's acceptance of the concept of Toward Zero Deaths (TZD). This is based on the ultimate goal of reducing highway deaths to zero, and the realization that this can only be accomplished by an incremental reduction of fatalities each year. In this regard, AOHS has set a strategic goal of reducing fatalities by 50% over the next 25 years, starting in CY 2012. Based on the 2011 fatality count of 895, this 2% (of the base year) per year reduction would average about 18 fatalities reduced per year.

While an average of 18 fatalities per year might seem a modest number, if this reduction were maintained as the average over a 25 year period it will save more than 5,600 lives, which would be a major accomplishment. The goal here is to continue the downward trend that was established in the 2007-2011 time frame, which reversed the alarming increase in fatalities that preceded 2007. Also, if the 2% of the base year is viewed as a percentage of the years in which reductions have taken place, this percentage grows linearly until in the 25th year it amounts to 4% of the previous year.

The record high number of traffic fatalities in Alabama occurred in calendar year 2006 with a total of 1207. Between 2007 and 2011, there was a reduction of 271 lives per year (a total of 1353 fatalities over that five-year time period). This rate of reduction was 6% per year, and every effort will be made to sustain these new lower fatality counts and reduce them even further and more consistently as time goes by.

It is now recognized that the major part of the extremely large reduction was due to a recession in the economy coupled with higher fuel prices. This is not to say that traffic safety efforts during this period did not play a part. However, the uniformity of program over this time frame would indicate that the underlying part that they played was no more than what would be expected before or after the recession. In addition, a dramatic increase caused by a regression to the mean after the recession would be expected.

Economic hardships have a much higher impact on unsafe drivers than on the average driving public, for the following reasons:

- They have a much higher impact on young drivers, economically disadvantaged with older less crashworthy vehicles, and on traffic on rural county roads that are dramatically over-represented in fatalities.

- Commercial Motor Vehicle (CMV) drivers, who typically put most of their mileage on safer roadways that are generally closer to emergency medical services, are not nearly as affected in that, of necessity, their driving generally continues at its normal rate; the same is true of most commuters.
- The recession also has a much higher impact on those with impaired driving tendencies due to higher costs of alcoholic beverages with less (or perhaps no) discretionary money to purchase it.
- The economic hardship places a much higher premium on slower speeds to conserve fuel.

The net result is that traffic volume cannot under these circumstances produce a linear determination of traffic crashes, and especially fatalities, because in times of recession the vast majority of travel is that of highly skilled professionals and experienced, properly-restrained commuters; thus there is a great leveraging effect brought about by recession.

With the end of the recession the factors given above have not only disappeared, in many details they have been dramatically reversed. For example, the dramatic reduction in travel which was seen by young drivers in the 2013-2014 time frames was exchanged for a major increase in 2015-2016. Thus, sustaining even a modest rate of 2% per year has not materialized over the short term since 2013.

The following table tracks the 2% per year for the three year running average.

Time Frame	Three Year Average	Differential	Percent Decrease	Goal Achieved?
2011-2013	870.3	---	---	
2012-2014	846.0	24.3	2.8%	Yes
2013-2015	840.7	5.3	0.6%	No
2014-2016	906.0	-65.3	-7.8%	No

As can be seen from this table, Alabama did not achieve the 2% goal in fatality reduction for the three year average for 2014-2016. It is important that this not cause a discouragement that leads to an abandonment of the 2% per year goal. Some solace can be obtained from the fact that the 2016 high of 1,088 fatalities is still 9.8% below the 2006 high of 1,207 despite a consistently increasing annual miles traveled. While this average reduction of 0.98% per year is below the 2% per year goal, it is hopeful that another regression to the mean will occur in the coming years that will be favorable to a reduction in fatalities.

Section 5.1 shows the results of monitoring the number of hotspots. The criteria used to find the number of hotspots and the calculation of the rate has not changed over the years in order to make the total number of hotspots comparable from year to year.

5.1.1 Number of Hotspots for Three-Year Periods

Fiscal Year	Calendar Year Data Used	Speed Hotspots	Impaired Driving Hotspots	Total Number of Hotspots
2009	2005-2007	142	191	333
2010	2006-2008	123	190	313
2011	2007-2009	93	194	287
2012	2008-2010	63	143	206
2013	2009-2011	45	144	189
2014	2010-2012	47	179	226
2015	2011-2013	37	198	235
2016	2012-2014	33	176	209
2017	2011-2015	30	166	196
2018	2012-2016	37	160	197

The change in the number of hotspots found (using identical search criteria) in each year will continue to be monitored. Hotspot locations determined by the same criteria will be the focus of selective enforcement efforts in the coming year, with the overall goal of reducing the number of hotspots in the future. Slight reductions in the total number of hotspots were seen in the three year periods ending 2008 and 2009. A more significant drop in the total number of hotspots was seen between 2009 and 2010 and between 2010 and 2011. There was an increase in the three year periods that ended on 2012 and 2013. This was generally reversed in the three year periods that ended in years 2014 and 2015. However, in the most recent three-year average (ending 2016), the number went back up to its 2011-2013 level.

General Strategy: To require the CTSP/LEL Coordinators to focus their plans primarily on the evidence-based analysis of speed, impaired driving and occupant restraint deficiency hotspot locations identified for their respective regions. By doing this they will be focusing on the most critical problem areas and the biggest killers. Tables 3a and 3b present a summary of all crashes for the Calendar Years 2001-2016. These statistics should be referenced as overall goals and strategies are discussed and determined.

5.1.2 Summary of All Crashes – CY 2001-2008 Alabama Data

Performance Measures	2001	2002	2003	2004	2005	2006	2007	2008
Fatal Crashes	902	931	899	1033	1013	1074	1010	886
Percent Fatal Crash	0.67%	0.66%	0.64%	0.71%	0.70%	0.77%	0.75%	0.71%
Injury Crashes	29,771	30,922	30,748	31,856	31,335	30,527	28,295	25,613
Percent Injury Crashes	22.26%	22.02%	21.80%	21.77%	21.76%	21.84%	20.92%	20.66%
PDO Crashes	103,066	108,583	109,420	113,469	111,645	108,179	107,971	99,241
Percent PDO Crashes	77.07%	77.32%	77.57%	77.53%	77.54%	77.39%	79.83%	80.05%
Total	133,739	140,436	141,067	146,358	143,993	139,780	135,256	123,968

5.1.3 Summary of All Crashes – CY 2009-2016 Alabama Data

Performance Measures	2009	2010	2011	2012	2013	2014	2015	2016
Fatal Crashes	775	793	814	815	745	737	739	992
Percent Fatal Crash	0.63%	0.62%	0.64%	0.63%	0.59%	0.55%	0.50%	0.64%
Injury Crashes	27,675	29,051	27,687	27,551	26,810	28,019	30,858	32,561
Percent Injury Crashes	22.37%	22.63%	21.69%	21.45%	21.15%	21.04%	20.93%	20.89%
PDO Crashes	96,840	100,126	100,795	101,706	100,675	100,319	111,674	118,268
Percent PDO Crashes	78.26%	77.99%	78.95%	79.18%	79.43%	75.33%	75.74%	75.89%
Total	123,740	128,384	127,668	128,442	126,740	133,175	147,452	155,851

5.2 FY 2018 Strategies and Performance Goals

5.2.1 Strategies

AOHS will continue to perform the overall administrative functions for the programs and projects implemented by the current HSP. This includes the development of the following strategies that will be applied during FY 2018:

- Conduct Evidence-Based Enforcement (E-BE) concentrating on *hotspot locations*, i.e., where it has been found that significantly higher than expected numbers of speed-related, impaired driving and occupant protection deficiencies have occurred over the previous five years (2011-2016).

- Sustain the statewide E-BE effort that includes law enforcement officers from both Alabama law Enforcement Agency (ALEA) and local law enforcement agencies.
- Administer these efforts by Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) coordinators to assure that the focus is on hotspot locations with the objective of increasing restraint usage and reducing speeding and impaired driving crashes.
- Participate in national "Click It or Ticket" campaign on the statewide level.
- Conduct a statewide "Drive Sober or Get Pulled Over" campaign as a part of the national campaign around the Memorial Day holiday.
- Conduct a statewide "Drive Sober or Get Pulled Over" campaigns as a part of the national campaign around Christmas and New Year's, St. Patrick's Day, Cinco De Mayo and Fourth of July time periods.
- Provide funding and technical support for the four Community Traffic Safety Programs (CTSP) Coordinators, i.e., the support for the CTSP/LEL Coordinators and the administrative support for their offices.
- Conduct ongoing local E-BE programs year-round within each of the CTSP/LEL regions.
- Conduct ongoing statewide E-BE programs in conjunction with the Alabama Law Enforcement Agency (ALEA).
- 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 2018.
- Continue the partnership with the University of Alabama Center for Advanced Public Safety (UA-CAPS) in order to generate the information required for allocating traffic safety resources in an optimal way and to provide crash analytics and information throughout the year.

5.2.2 Hotspot Performance Measures and Goals

Performance Measure: The metric being applied is the number of hotspots found. A smaller number of hotspots found would indicate progress in reducing crashes in the selective enforcement areas to the point of eliminating some of the areas identified as hotspots in the previous years. As the hotspots continue to be tracked in the future, the table below will be updated to track the number of hotspots that were found statewide according to the fixed criteria. This table indicates how the performance measures for Speed and Impaired Driving hotspots have changed since 2008.

Performance Measure Hotspot Type	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**AVERAGE**
Speed	123	93	63	45	47	37	33	30	37	70
Impaired Driving	190	194	143	144	179	198	176	166	160	178
TOTAL	313	287	206	189	226	235	209	196	197	248

Short Term Hotspot Goals: The following short term goals have been established based on the historical assessment and future expectations:

- The goal for the number of speed hotspots for 2018 is to reduce the number to 35 from the 37 speed hotspots in 2016.
- The goal for the number of impaired driving hotspots for 2018 is to reduce the number of hotspots to 157 from the level of 160 impaired driving hotspots in 2016.

The goals set for this year will be in place for one year as the state efforts have focused on these types of crashes for the past several years. As these programs continue to gain momentum, reductions should be seen each year and monitored on a year to year basis.

5.2.3 Impaired Driving Crashes Performance Measures and Goals

Performance Measures: The following table indicates how the performance measures for impaired driving crashes have changed since 2001 (note that this is a count of crashes, not fatalities or injuries):

Performance Measures	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Impaired Driving Fatal Crashes	219	214	203	228	212	237	257	212
Impaired Driving Injury Crashes	3,066	3,078	2,878	2,876	2,948	3,042	2,719	2,450
Total	3,285	3,292	3,081	3,104	3,160	3,279	2,976	2,662

Performance Measures	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Impaired Driving Fatal Crashes	237	210	217	197	184	187	203	232
Impaired Driving Injury Crashes	2,548	2,798	2,647	2,661	2,292	2,191	2,405	2,342
Total	2,785	3,008	2,864	2,847	2,476	2,378	2,608	2,574

Short Term Impaired Driving Crash Reduction Goals: The following short term goals have been established based on the historical assessment and future expectations:

- The goal for the number of impaired driving fatal crashes for 2018 is to reduce the number to 230 from the level of 232 in 2016.
- The goal for the number of impaired driving injury crashes for 2018 is to maintain the 2016 level of 2,342.

As has been true in the past, the goals for the coming year were set based upon the most recently available five years of data (2012-2016). This allows for consistent year-to-year monitoring of the goals.

5.2.4 Speed Related Crash Performance Measures and Goals

Performance Measures: The following table indicates how the performance measures for speed-related crashes have changed since 2001:

Performance Measures	2001	2002	2003	2004	2005	2006	2007	2008
Speed Fatal Crashes	256	298	293	317	331	370	359	338
Speed Injury Crashes	3,119	3,253	3,208	3,325	3,502	3,712	3,392	2,958
Total	3,375	3,551	3,501	3,642	3,833	4,082	3,751	3,296

Performance Measures	2009	2010	2011	2012	2013	2014	2015	2016
Speed Fatal Crashes	221	212	188	177	160	141	138	207
Speed Injury Crashes	2,299	1,883	1,832	1,778	1,494	1,529	1,634	1,700
Total	2,520	2,095	2,020	1,955	1,654	1,670	1,772	1,907

Short Term Speed Related Crash Reduction Goals: The following short term goals have been established based on the historical assessment and future expectations:

- The goal for the number of speed fatal crashes for 2018 is to reduce the number to 205 from the level of 207 in 2016.
- The goal for the number of speed injury crashes for 2018 is to maintain the 2016 level at its current value of 1,700.

As has been true in the past, the goals for the coming year were set based upon the most recently available five.

Performance Measures	2001	2002	2003	2004	2005	2006	2007	2008
Seat Belt Usage Rate	79.40%	78.80%	77.40%	80.00%	81.90%	82.90%	82.30%	86.10%
Child Safety Seat Usage Rate	77.00%	89.40%	87.00%	82.90%	91.60%	88.00%	92.30%	88.20%

Performance Measures	2009	2010	2011	2012	2013	2014	2015	2016
Seat Belt Usage Rate	90.00%	91.43%	88.00%	89.50%	97.30%	95.70%	93.29%	92.00%
Child Safety Seat Usage Rate	94.91%	93.12%	95.83%	93.00%	97.70%	97.90%	96.40%	95.50%

Short Term Occupant Protection Goals: The following short term goals have been established based on the historical assessment and future expectations:

- The goal for the statewide seat belt usage rate that will be measured during CY 2018 is to maintain the baseline of 93.6% five year average for CY 2012-2016 to 93.6% in 2018.
- The goal for the statewide child safety seat usage that will be measured during CY 2017 is to main the baseline 96.1% five year average for CY 2012-2016 to 96.1% in 2017.

5.3 Administrative Goals

Personnel:

- To ensure that the AOHS staff (which includes the Governor's Representative, State Coordinator/Public Safety Unit Chief, Highway Traffic Safety Program Supervisor, and Highway Safety Program Manager) has access to information needed to manage a NHTSA compliant Highway Traffic Safety Program, they must attend the appropriate meetings and training sessions.
- The AOHS staff, and all CTSP/LEL Coordinators must attend the NHTSA sponsored Annual Regional LEL Conference. The staff will attend this meeting so they are able to effectively discuss regional and state issues and highway safety initiatives for the upcoming year.
- The AOHS staff is encouraged to be represented at the annual Lifesaver's National Conference on Highway Safety Priorities and the Governor's Highway Safety Association meetings. The representatives attending these conferences will be updated on safety topics such as speed enforcement, impaired driving, child passenger safety and occupant protection, roadway and vehicle safety and technology, traffic records, motorcycle safety and necessary traffic safety training.

5.4 Traffic Records Goals and Strategies

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

- 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.
- 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.
- To administer the Section 405c funded projects so that the comprehensive traffic records plan developed to support those efforts is brought to fruition per the strategies given below.
- 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.
- 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.

AOHS 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. Their 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.

Some of the most advanced traffic safety information systems have been developed and put into operation by the University of Alabama Center for Advanced Public Safety (UA-CAPS), and they stand ready to continue their partnership with AOHS to develop and maintain these capabilities with a series of projects during the 2018 fiscal year. The areas in the state's traffic records information system that are most in need of innovation in order to satisfy all TSIS goals are chosen for implementation. This planning effort is given in the State of Alabama Traffic Safety Information Systems (TSIS) Five Year Strategic Plan (2018-2022). The following is the *five-year* vision from this plan that was adopted by the TRCC. It provides the high-level guidance to the planning process by establishing the strategies for accomplishing its goals by the end of the five year planning horizon:

- All police and EMS vehicles (both state and local) will be equipped with laptops or other equipment that will enable the direct entry and retrieval of all relevant records (e.g., including crashes, citation, criminal and EMS records). A common virtual environment within these vehicles will facilitate not only data entry and use, but also communications of imagery, GIS coordinates and other information to provide complete coordination and interoperability among first responders and subsequent rescue units for such events as traffic, weather and terrorist emergencies.
- Global Positioning System (GPS) and Geographical Information Systems (GIS) technologies will enable officers and EMS personnel to automatically enter accurate locations directly into their respective crash, citation, EMS run and all other records that require location specification. By clicking the location on automated maps all the necessary data will be accurately added to the records making unnecessary any further map or table lookup or other data entry (e.g., the route number or road name). This capability will be available to all law enforcement statewide to be used in any of their systems requiring location specification.
- Systems will be available in each unit to optimally map out quickest routes and alternative routes to emergencies dynamically around congestion. The system will contain artificial intelligence capabilities that will modify alternative routes based on past approved experiences as well as shortest distance/quickest time.
- Digital data and imagery will be pushed to both the central dispatch and local command cells where they are most needed to deal with emergencies such as weather events or hazardous materials catastrophes. Field inputs will be designed to enable officers to provide these data elements in a minimal time and effort on their part. Data will be piped back to them from all involved officers so that both the central and distributed commands can have not only situational awareness, but there will be full perception of resource availability so that resources can respond to emergency situations in the most effective way possible.
- Bar coding and electronic encryption on drivers' licenses, vehicle registrations and other identification cards will enable accurate and complete driver and registration data to be populated automatically and directly into the all records that consume these data elements.
- All citizens above the age of 15 will have STAR ID with a capability of adding data to their identification cards to meet a variety of traffic safety and other social and economic needs, including identification, authentication, and system/facility access.
- All citation, crash, EMS and other records will be submitted electronically on consistent and integrated data entry systems, and the data will be automatically uploaded to the central databases, saving considerable data entry costs and resulting in complete and consistent records that are readily available for analysis and case management.

- Data generated will be immediately available at the local levels to planners and countermeasure developers. Analytics software will be provided to enable them to obtain any information contained in these data to define problem locations, perform problem identifications, and formulate improved countermeasures on a continuous basis. The ultimate goal will be to provide an analytics capability in the field in real time and to train field officers in some of the basics of its use.
- Data generated will also be piped to virtual real-time dashboards that will enable administrators to monitor and control their projects, and to view information generated from their respective systems in a wide variety of ways that respond to their operational needs. These dashboards will be fully customizable so that, by default, they will see a common view of the performance metrics for their systems in real time for any time frame.
- Dashboards will be developed for mobile systems such that they can be set to default to the most useful information that is needed by the field officer on a daily/hourly basis. In addition, they will provide the interface to more detailed alternative information that is currently not available on web-based dashboard systems (e.g., IMPACT analyses).
- A centralized index of all available databases will exist that will enable users of these data to understand the availability and content of these databases and to access the data needed for both planning and operational purposes.
- A system will exist to integrate the various disparate databases. For example, GIS will enable the roadway characteristics data to be merged with crash data to provide the basis for surfacing those roadway characteristics that have the maximum potential for crash frequency and severity reduction. Databases will have the ability to be integrated by any common key.
- The RESCUE (EMS run records data entry) system will be completed that will enable all EMS units in the state to access information and submit information under MOVE.
- Case number cross references will enable the merging of crash and medical/EMS data to enable optimal deployment of EMS resources and the development of new countermeasures. In the interim, key data elements in the EMSIS and Trauma data systems will be used to merge these data. Crash, EMS (ambulance run), and trauma data will have an integration capability that is both deterministic and probabilistic, depending on the data availability.
- The FHWA Highway Safety Manual (HSM) and Interactive Highway Safety Design Manual (IHSDM), along with the AASHTO Safety Analyst systems, will be implemented to the extent that they are seen to improve both (1) the safety of overall roadway designs, and (2) the ability of the current Cost-benefit Optimization for the Reduction of Roadway Caused Tragedies (CORRECT) to produce roadway improvements that produce the maximum safety benefits. This will necessitate that roadway characteristics are made available to roadway designers and high crash location investigation teams as required by the systems and manuals listed above.
- A system will be developed and deployed by ALDOT that will totally integrate the maintenance and safety roadway improvement projects so that when assets are deployed for roadway maintenance they can be leveraged to produce roadway improvements over the entire segment being maintained; this has been found to reduce the cost of otherwise pure safety project to the extent that the benefit-cost ratios for such roadway improvements are at least doubled.
- Internet portals that include both analytical and GIS capabilities will enable any and all of

this information to be viewed on virtually any computer in use, including smart phones or above. This increased visualization in the form of maps will enable decision-makers to visualize and better understand the true nature of problems, especially those that go beyond solutions at point locations and involve comparative analysis over relatively long segments.

- A more intuitive user interface, including wizards, will be developed for CARE and the CARE Dashboard systems that will enable anyone who is computer literate to immediately obtain information directly from this system without prior training above the documentation provided.
- A unified approach to court records will exist such that the violation, court referral, alternative sentencing and criminal histories will be available to all courts and other authorized officials throughout the state in real time.
- All traffic safety efforts within the state will be recorded for and published in a common web site that will provide a reference back to the various web sites of the agencies and service organizations that are performing these activities. Called *SafeHomeAlabama.gov*, this web site will be kept current by efforts of members of all of the participating organizations.
- An improvement in demographics data will be made available to all uses of technology in the State via *SafeHomeAlabama.gov* to enable them to formulate countermeasure approaches using crash rates by severity in addition to raw frequencies.
- There will be a major effort throughout the traffic safety community led by the Traffic Records Coordinating Committee and other Information Technology specialists to recognize the feasibility of ultimately removing the driver from the critical role of vehicle control. The shift of emphasis toward recognizing that the Toward Zero Deaths (TZD) goal can only be achieved by these developing technologies is itself a major challenge that must be faced by technology specialists.

5.5 Legislative Goals

A list of current legislative instruments will be tracked and/or supported by the AOHS is included on the Safe Home Alabama website:

http://www.safehomealabama.gov/GovernmentAgencies/StateAgencies/ALLegislature.aspx

6.0 HOTSPOT LISTINGS AND REGIONAL REPORTS

Hotspot analyses were done according to the CTSP/LEL regions in order to provide for the administration of the Evidenced-Based Enforcement (E-BE) projects. The designated regions are as follows:

Region	**Counties**
East Central	Blount, Calhoun, Chambers, Cherokee, Chilton, Clay, Cleburne, Coosa, Elmore, Etowah, Jefferson, Lee, Macon, Randolph, St. Clair, Shelby, Tallapoosa, and Talladega
North Central	Colbert, Cullman, DeKalb, Fayette, Franklin, Jackson, Lamar, Lauderdale, Lawrence, Limestone, Madison, Marion, Marshall, Morgan, Pickens, Walker, and Winston
South	Baldwin, Choctaw, Clarke, Conecuh, Dallas, Escambia, Green Hale, Marengo, Mobile, Monroe, Perry, Sumter, Washington, and Wilcox
South East	Autauga, Barbour, Bibb, Bullock, Butler, Coffee, Covington, Crenshaw, Dale, Geneva, Henry, Houston, Lowndes, Montgomery, Pike, Russell, and Tuscaloosa

In order to determine the hotspots for each region, several statewide reports were generated as follows:

- Through the use of the 2014-2016 crash data for the State of Alabama, the CARE program and the ESRI Arc GIS suite of programs, a complete listing and illustration of hotspots was developed for all roadways throughout the state.
- Speed, Impaired Driving and Restraint Deficient hotspots provided the focus for hotspot development on all types of roadways within the state.
- Using CARE, hotspots were identified in each of the three major categories; this produced hotspots on or at:
    - Interstates,
    - Federal or State Routes,
    - Non-mileposted intersections (for Impaired Driving Crashes only),
    - Non-mileposted segments.

This process produced a total of 37 Speed Hotspots and 160 Impaired Driving Hotspots throughout the state.

The reports generated detailing this information for the entire state included:

1. State of Alabama Fatalities Bar Graph (2006-2016)
2. 2016 Alabama Fatalities by County and Region Map
3. Alabama Fatalities for State and Region (2006-2016)
4. Top 19 Speeding Related Mileposted Interstate Crashes Breakdown by Region
5. Top 19 Speeding Related Mileposted Interstate Crashes Listing
6. Top 23 Impaired Driving Related Mileposted Interstate Crashes Breakdown by Region
7. Top 23 Impaired Driving Related Mileposted Interstate Crashes Listing
8. Top 8 Speeding Related Mileposted State/Federal Route Crashes Breakdown by Region
9. Top 8 Speeding Related Mileposted State/Federal Route Crashes Listing
10. Top 30 Impaired Driving Related Mileposted State/Federal Route Crashes breakdown by Region
11. Top 30 Impaired Driving Related Mileposted State/Federal Route Crashes Listing
12. Top 77 Impaired Driving Related Non-Mileposted Intersection Crashes Breakdown by Region
13. Top 77 Impaired Driving Related Non-Mileposted Intersection Crashes Listing
14. Top 10 Speeding Related Non-Mileposted Segment Crashes Breakdown by Region
15. Top 10 Speeding Related Non-Mileposted Segment Crashes Listing
16. Top 30 Impaired Driving Related Non-Mileposted Segment Crashes Breakdown by Region
17. Top 30 Impaired Driving Related Non-Mileposted Segment Crashes Listing
18. Hotspot Count and Totals by Region and County Map for All Hotspots
19. Hotspot Breakdown by Region for All Hotspots
20. Hotspot Count and Totals by Region and County Map for Interstate Hotspots Only
21. Hotspot Count Breakdown by Region for Interstate Hotspots Only
22. Hotspot Count and Totals by Region and County Map for Speeding Related Hotspots Only
23. Hotspot Count Breakdown by Region for Speeding Related Hotspots Only
24. Hotspot Count and Totals by Region and County Map for Impaired Driving Related Hotspots Only

25. Hotspot Count Breakdown by Region for Impaired Driving Related Hotspots Only

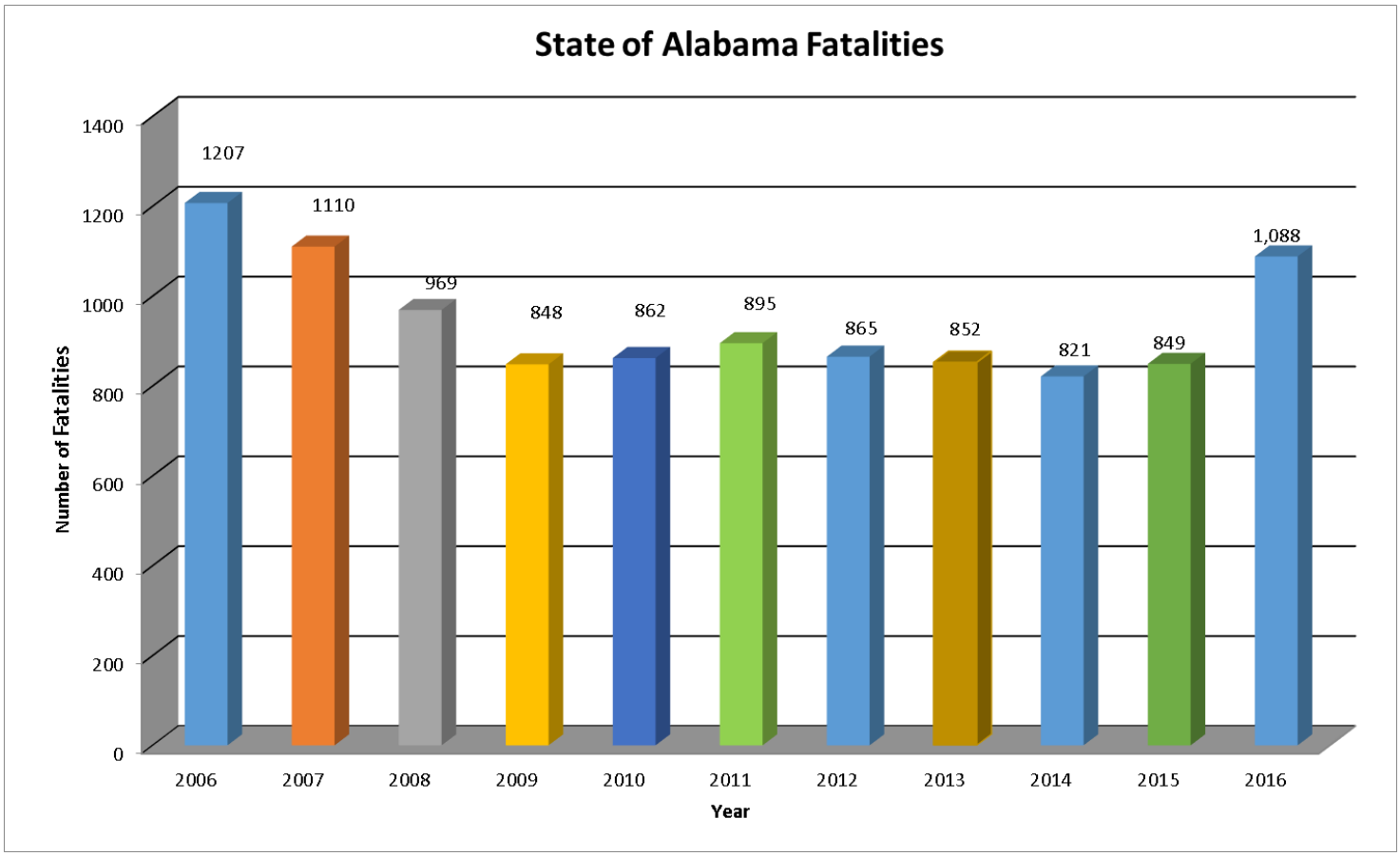
Each of these statewide lists and maps are included in the pages that follow.

In addition to the statewide information, regional information was generated for each of the four CYSP/LEL regions. This information was formatted in the same way as the statewide reports but only included information on hotspots each specific region. Interstate Hotspots were not distributed to the Regions because they are covered by the Alabama Law Enforcement Agency (ALEA), and thus, they are not under the control of the four CTSP/LEL Coordinators. These hotspot lists that each region received included the statewide list along with a second list that was restricted to just the region in question. The reports provided on a regional basis were as follows:

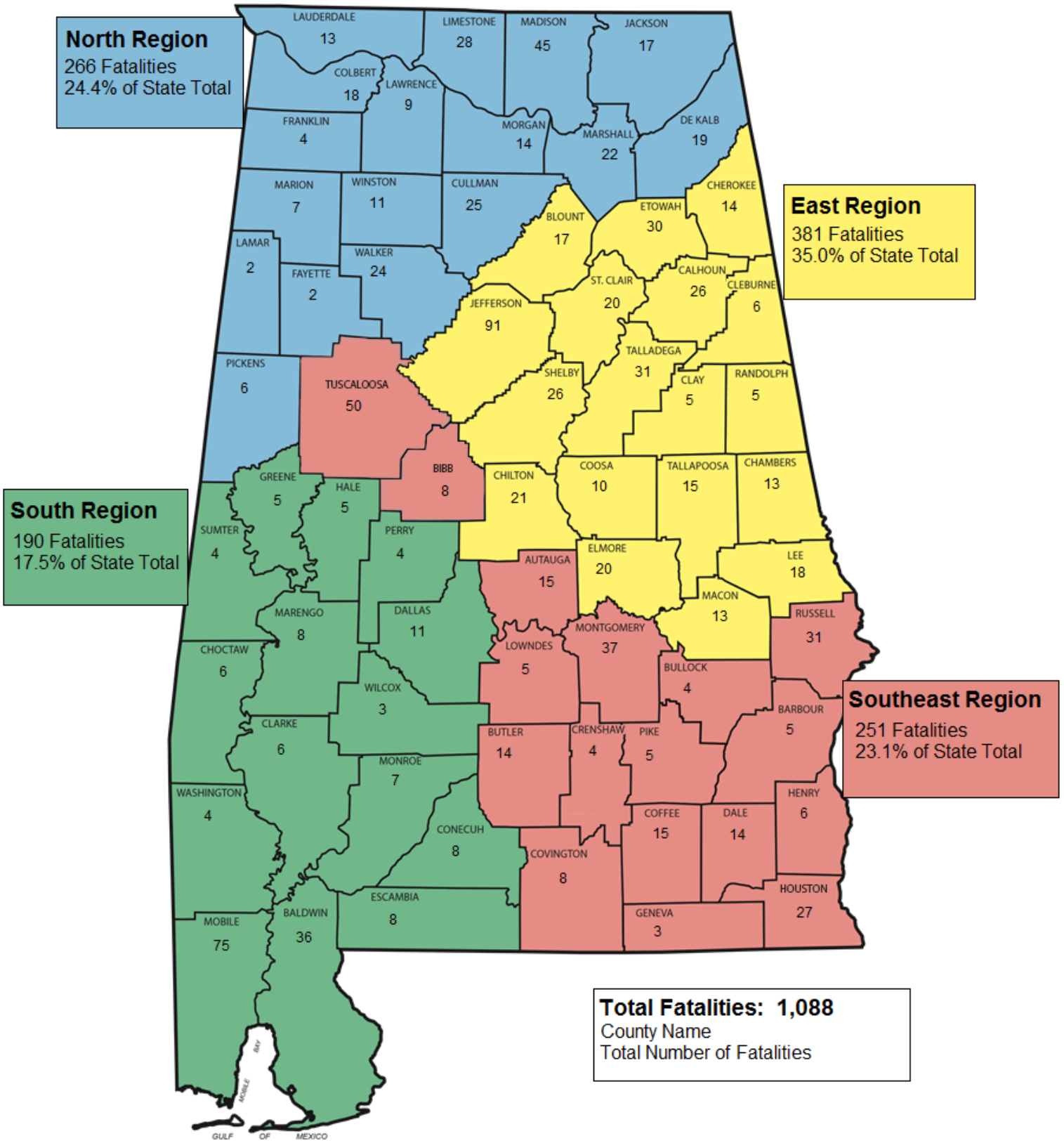
1. Regional Fatalities Bar Graph (2006-2016)
2. Top Speeding Related Mileposted State/Federal Route Crashes Listing for Region
3. Top Impaired Driving Related Mileposted State/Federal Route Crashes Listing for Region
4. Top Impaired Driving Related Non-Mileposted Intersection Crashes Listing for Region
5. Top Speeding Related Non-Mileposted Segment Crashes Listing for Region
6. Top Impaired Driving Related Non-Mileposted Segment Crashes Listing for Region

By providing both statewide information and information specific to their region, the regional coordinators were able to identify the problem areas in their region but also look at how they were doing on a statewide level.

CTSP/LEL Coordinators were instructed to focus their plans for the coming year on the Hotspot locations given in the reports for their region. Funds distributed by AOHS will focus completely on these areas within the region. By employing this E-DE method of funds distribution, a measurable effect on the two largest factors that cause crashes (speeding and impaired driving) should be seen. It is expected that the same criteria used to identify the Speeding Related Hotspots and Impaired Driving Related Hotspots locations will be used in coming years. If funds are employed effectively, the number of hotspots should fall within the next few years on both a statewide level and within each individual region.


State of Alabama Fatalities
Number of Fatalities
1400
1200
1000
800
600
400
200
0
1207
1110
969
848
862
895
865
852
821
849
1,088
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Year

2016 Fatalities in Alabama



State of Alabama Fatalities

Year	Number
2006	1207
2007	1110
2008	966
2009	849
2010	859
2011	899
2012	865
2013	852
2014	821
2015	849
2016	1,088

State of Alabama Fatalities by Region

East Central

Year	Number
2006	352
2007	356
2008	315
2009	291
2010	295
2011	305
2012	297
2013	292
2014	265
2015	261
2016	381

North Central

Year	Number
2006	381
2007	323
2008	281
2009	271
2010	257
2011	279
2012	276
2013	246
2014	224
2015	214
2016	266

South

Year	Number
2006	263
2007	235
2008	210
2009	159
2010	178
2011	178
2012	166
2013	184
2014	193
2015	185
2016	190

Southeast

Year	Number
2006	211
2007	196
2008	154
2009	128
2010	129
2011	137
2012	126
2013	130
2014	139
2015	189
2016	251

Top 19 Mileposted Interstate Locations (10 Miles in Length) in Alabama with 8 or More Speeding Related Crashes Resulting in Injury or Fatality

Region Breakdown

East Region	11	57.9%	North Region	1	5.3%
South Region	3	15.8%	Southeast Region	4	21.1%

East Region	11
Blount	1
Calhoun	1
Chambers	0
Cherokee	0
Chilton	0
Clay	0
Cleburne	0
Coosa	0
Elmore	0
Etowah	1
Jefferson	6
Lee	0
Macon	0
Randolph	0
St Clair	1
Shelby	1
Tallapoosa	0
Talladega	0

South Region	3
Baldwin	1
Choctaw	0
Clarke	0
Conecuh	0
Dallas	0
Escambia	0
Greene	0
Hale	0
Marengo	0
Mobile	2
Monroe	0
Perry	0
Sumter	0
Washington	0
Wilcox	0

North Region	1
Colbert	0
Cullman	1
Dekalb	0
Fayette	0
Franklin	0
Jackson	0
Lamar	0
Lauderdale	0
Lawrence	0
Limestone	0
Madison	0
Marion	0
Marshall	0
Morgan	0
Pickens	0
Walker	0
Winston	0

Southeast Region	4
Autauga	1
Barbour	0
Bibb	0
Bullock	0
Butler	0
Coffee	0
Covington	0
Crenshaw	0
Dale	0
Geneva	0
Henry	0
Houston	0
Lowndes	0
Montgomery	1
Pike	0
Russell	0
Tuscaloosa	2

Top 19 Mileposted Interstate Locations (10 Miles in Length) in Alabama with 8 or More Speeding Related Crashes Resulting in Injury or Fatality

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Etowah	Rural Etowah	I-59	175	185	10	1	9	31	0.03	363.16	19899	ALEA - Gadsden Post
2	Mobile	Mobile	I-10	17.9	27.9	11	3	8	28.18	0.01	1388.3	76071	Mobile PD
3	Jefferson	Rural Jefferson	I-59	111	121	9	0	9	27.78	0.01	1120.22	61382	ALEA - Birmingham Post
4	Montgomery	Rural Montgomery	I-65	174.4	184.4	8	2	6	27.5	0.01	935.73	51273	ALEA - Montgomery Post
5	Jefferson	Rural Jefferson	I-459	13	23	8	2	6	27.5	0	1653.74	90616	ALEA - Birmingham Post
6	Calhoun	Rural Calhoun	I-20	184	194	8	1	7	26.25	0.01	638.6	34992	ALEA - Jacksonville Post
7	Mobile	Rural Mobile	I-10	7.7	17.7	9	1	8	25.56	0.01	1006.96	55176	ALEA - Mobile Post
8	Jefferson	Rural Jefferson	I-20	132.1	142.1	8	0	8	25	0.01	1077.17	59023	ALEA - Birmingham Post
9	Baldwin	Rural Baldwin	I-10	32.9	42.9	10	0	10	23	0.01	932.48	51095	ALEA - Mobile Post
10	Shelby	Rural Shelby	I-65	232.2	242.2	8	0	8	21.25	0.01	1142.76	62617	ALEA - Birmingham Post
11	Tuscaloosa	Rural Tuscaloosa	I-59	62	72	8	0	8	21.25	0.02	531.02	29097	ALEA - Tuscaloosa Post
12	Jefferson	Rural Jefferson	I-65	266	276	8	0	8	20	0.01	1070.62	58664	ALEA - Birmingham Post
13	Cullman	Rural Cullman	I-65	293.9	303.9	8	1	7	20	0.01	744.11	40773	ALEA - Decatur Post
14	St Clair	Rural St. Clair	I-20	142.1	152.1	9	0	9	20	0.01	995.9	54570	ALEA - Birmingham Post
15	Jefferson	Birmingham	I-65	255.7	265.7	9	0	9	18.89	0	2034.88	111500	Birmingham PD
16	Autauga	Rural Autauga	I-65	184.5	194.5	8	0	8	18.75	0.01	621.49	34054	ALEA - Montgomery Post
17	Blount	Rural Blount	I-65	281	291	8	0	8	18.75	0.01	784.93	43010	ALEA - Decatur Post
18	Jefferson	Birmingham	I-59	121.5	131.5	16	1	15	16.88	0.01	2356.15	129104	Birmingham PD
19	Tuscaloosa	Rural Tuscaloosa	I-59	72.1	82.1	8	0	8	16.25	0.01	895.49	49068	ALEA - Tuscaloosa Post

Top 23 Mileposted Interstate Locations (5 miles in length) in Alabama with 8 or More Impaired Driving Related Crashes Resulting in Injury or Fatality

Region Breakdown

East Region	12	52.2%	North Region	2	8.7%
South Region	5	21.7%	Southeast Region	4	17.4%

East Region	12
Blount	0
Calhoun	0
Chambers	0
Cherokee	0
Chilton	0
Clay	0
Cleburne	0
Coosa	0
Elmore	0
Etowah	1
Jefferson	8
Lee	0
Macon	0
Randolph	0
St Clair	2
Shelby	1
Tallapoosa	0
Talladega	0

South Region	5
Baldwin	2
Choctaw	0
Clarke	0
Conecuh	0
Dallas	0
Escambia	0
Greene	0
Hale	0
Marengo	0
Mobile	3
Monroe	0
Perry	0
Sumter	0
Washington	0
Wilcox	0

North Region	2
Colbert	0
Cullman	1
Dekalb	0
Fayette	0
Franklin	0
Jackson	0
Lamar	0
Lauderdale	0
Lawrence	0
Limestone	0
Madison	1
Marion	0
Marshall	0
Morgan	0
Pickens	0
Walker	0
Winston	0

Southeast Region	4
Autauga	0
Barbour	0
Bibb	0
Bullock	0
Butler	0
Coffee	0
Covington	0
Crenshaw	0
Dale	0
Geneva	0
Henry	0
Houston	0
Lowndes	0
Montgomery	3
Pike	0
Russell	0
Tuscaloosa	1

Top 23 Mileposted Interstate Locations (5 Miles in Length) in Alabama with 8 or More Impaired Driving Related Crashes Resulting in Injury or Fatality

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Jefferson	Hoover	I-65	251	256	12	6	6	35	0.01	1072.98	117587	Hoover PD
2	Etowah	Rural Etowah	I-59	177	182	8	2	6	33.75	0.04	196.22	21504	ALEA - Gadsden Post
3	St Clair	Rural St. Clair	I-20	161.8	166.8	8	2	6	31.25	0.02	378.19	41446	ALEA - Birmingham Post
4	Montgomery	Montgomery	I-85	1	6	10	4	6	29	0.01	928.54	101758	Montgomery PD
5	Madison	Huntsville	I-565	15	20	9	3	6	28.89	0.01	687.15	75304	Huntsville PD
6	St Clair	Rural St. Clair	I-20	151.2	156.2	9	0	9	27.78	0.02	455.29	49895	ALEA - Birmingham Post
7	Jefferson	Hoover	I-459	8	13	8	1	7	26.25	0.01	566.58	62091	Hoover PD
8	Tuscaloosa	Rural Tuscaloosa	I-59	68.9	73.9	11	2	9	25.45	0.03	372.47	40819	ALEA - Tuscaloosa Post
9	Jefferson	Birmingham	I-59	130	135	19	2	17	25.26	0.03	636.33	69735	Birmingham PD
10	Mobile	Mobile	I-65	0.5	5.5	10	2	8	24	0.01	801.33	87817	Mobile PD
11	Jefferson	Birmingham	I-59	119.5	124.5	10	1	9	24	0.01	972.96	106626	Birmingham PD
12	Shelby	Alabaster	I-65	233.9	238.9	8	1	7	23.75	0.01	537.36	58889	ALEA - Birmingham Post
13	Montgomery	Montgomery	I-85	9	14	8	1	7	23.75	0.02	372.81	40856	Montgomery PD
14	Jefferson	Fairfield	I-59	114.5	119.5	13	0	13	23.08	0.02	572.16	62703	Fairfield PD
15	Jefferson	Hoover	I-65	246	251	9	2	7	22.22	0.01	966.21	105886	Hoover PD
16	Mobile	Mobile	I-10	13	18	8	1	7	21.25	0.01	582.82	63871	Mobile PD
17	Jefferson	Rural Jefferson	I-65	262.7	267.7	8	0	8	20	0.01	688.8	75485	ALEA - Birmingham Post
18	Baldwin	Rural Baldwin	I-10	30	35	9	0	9	20	0.02	576.88	63220	ALEA - Mobile Post
19	Mobile	Rural Mobile	I-10	5.7	10.7	8	0	8	18.75	0.02	415.02	45482	ALEA - Mobile Post
20	Baldwin	Daphne	I-10	36.1	41.1	8	1	7	18.75	0.02	440.1	48230	Daphne PD
21	Montgomery	Montgomery	I-65	170	175	8	0	8	17.5	0.01	646.78	70880	Montgomery PD
22	Cullman	Rural Cullman	I-65	293.4	298.4	8	0	8	17.5	0.02	359.53	39400	ALEA - Decatur Post
23	Jefferson	Birmingham	I-59	124.5	129.5	15	0	15	14	0.01	1355.83	148584	Birmingham PD

Top 8 Mileposted Federal and State Route Locations (10 miles in length) in Alabama with 8 or More Speeding Related Crashes Resulting in Injury or Fatality

Region Breakdown

East Region	4	50.0%	North Region	2	25.0%
South Region	1	12.5%	Southeast Region	1	12.5%

East Region	4
Blount	0
Calhoun	1
Chambers	0
Cherokee	1
Chilton	0
Clay	0
Cleburne	0
Coosa	0
Elmore	0
Etowah	1
Jefferson	0
Lee	1
Macon	0
Randolph	0
St Clair	0
Shelby	0
Tallapoosa	0
Talladega	0

South Region	1
Baldwin	1
Choctaw	0
Clarke	0
Conecuh	0
Dallas	0
Escambia	0
Greene	0
Hale	0
Marengo	0
Mobile	0
Monroe	0
Perry	0
Sumter	0
Washington	0
Wilcox	0

North Region	2
Colbert	0
Cullman	0
Dekalb	0
Fayette	0
Franklin	0
Jackson	0
Lamar	0
Lauderdale	0
Lawrence	0
Limestone	1
Madison	1
Marion	0
Marshall	0
Morgan	0
Pickens	0
Walker	0
Winston	0

Southeast Region	1
Autauga	0
Barbour	0
Bibb	0
Bullock	0
Butler	0
Coffee	0
Covington	0
Crenshaw	0
Dale	0
Geneva	0
Henry	0
Houston	0
Lowndes	0
Montgomery	0
Pike	0
Russell	0
Tuscaloosa	1

Top 8 Mileposted State and Federal Route Locations (10 Miles in Length) in Alabama with 8 or More Speeding Related Crashes Resulting in Injury or Fatality

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Cherokee	Rural Cherokee	S-25	244.4	254.4	8	2	6	35	0.13	62.89	3446	ALEA - Gadsden Post
2	Madison	Rural Madison	S-1	341.7	351.7	9	2	7	27.78	0.02	450.03	24659	ALEA - Huntsville Post
3	Baldwin	Rural Baldwin	S-3	3.6	13.6	8	2	6	26.25	0.04	180.18	9873	ALEA - Mobile Post
4	Etowah	Rural Etowah	S-1	267.6	277.6	9	0	9	25.56	0.03	275.79	15112	ALEA - Gadsden Post
5	Tuscaloosa	Rural Tuscaloosa	S-216	17.7	27	8	0	8	22.5	0.08	105.26	6202	ALEA - Tuscaloosa Post
6	Calhoun	Jacksonville	S-21	259	269	8	0	8	22.5	0.02	372.12	20390	Jacksonville PD
7	Limestone	Rural Limestone	S-2	80	90	12	0	12	21.67	0.03	449.15	24611	ALEA - Decatur Post
8	Lee	Rural Lee	S-1	115	125	10	0	10	20	0.03	393.27	21549	ALEA - Opelika Post

Top 30 Mileposted Locations on State and Federal Routes (5 miles in length) in Alabama with 9 or More Impaired Driving Related Crashes Resulting in Injury or Fatality

Region Breakdown

East Region	5	16.7%	North Region	12	40.0%
South Region	4	13.3%	Southeast Region	9	30.0%

East Region	5
Blount	1
Calhoun	0
Chambers	0
Cherokee	0
Chilton	0
Clay	0
Cleburne	0
Coosa	0
Elmore	2
Etowah	0
Jefferson	2
Lee	0
Macon	0
Randolph	0
St Clair	0
Shelby	0
Tallapoosa	0
Talladega	0

South Region	4
Baldwin	2
Choctaw	0
Clarke	0
Conecuh	0
Dallas	0
Escambia	0
Greene	0
Hale	0
Marengo	0
Mobile	2
Monroe	0
Perry	0
Sumter	0
Washington	0
Wilcox	0

North Region	12
Colbert	1
Cullman	0
Dekalb	0
Fayette	0
Franklin	0
Jackson	0
Lamar	0
Lauderdale	0
Lawrence	0
Limestone	1
Madison	8
Marion	0
Marshall	0
Morgan	2
Pickens	0
Walker	0
Winston	0

Southeast Region	9
Autauga	0
Barbour	0
Bibb	0
Bullock	0
Butler	0
Coffee	0
Covington	0
Crenshaw	0
Dale	0
Geneva	0
Henry	0
Houston	0
Lowndes	0
Montgomery	0
Pike	0
Russell	2
Tuscaloosa	7

Top 30 Mileposted State and Federal Route Locations (5 Miles in Length) in Alabama with 9 or More Impaired Driving Related Crashes Resulting in Injury or Fatality

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Madison	Huntsville	S-2	95	100	9	3	6	31.11	0.03	280.78	30770	Huntsville PD
2	Limestone	Rural Limestone	S-2	80.5	85.5	9	1	8	28.89	0.06	162.63	17822	ALEA - Decatur Post
3	Colbert	Littleville	S-13	301.7	306.7	9	1	8	28.89	0.08	119.2	13063	Littleville PD
4	Blount	Rural Blount	S-79	20.1	25.1	10	2	8	27	0.15	67.58	7406	ALEA - Decatur Post
5	Mobile	Rural Mobile	S-42	6.2	11.2	9	2	7	26.67	0.06	150.59	16503	ALEA - Mobile Post
6	Russell	Rural Russell	S-8	207.5	212.5	10	0	10	26	0.07	137.31	15048	Phenix City PD
7	Elmore	Rural Elmore	S-14	163.4	168.4	9	1	8	25.56	0.08	114.91	12593	ALEA - Montgomery Post
8	Baldwin	Daphne	S-16	44	49	9	2	7	25.56	0.07	120.25	13178	Daphne PD
9	Madison	Huntsville	S-2	100	105	12	1	11	24.17	0.04	285.99	31341	Huntsville PD
10	Russell	Phenix City	S-1	109.2	114.2	10	0	10	24	0.04	279.57	30638	Phenix City PD
11	Tuscaloosa	Rural Tuscaloosa	S-6	55.3	60.3	10	1	9	24	0.09	107.75	11808	ALEA - Tuscaloosa Post
12	Madison	Rural Madison	S-1	340	345	12	2	10	23.33	0.05	264.05	28937	ALEA - Huntsville Post
13	Mobile	Rural Mobile	S-42	11.8	16.8	10	1	9	23	0.04	241.35	26449	ALEA - Mobile Post
14	Morgan	Decatur	S-67	34.5	39.5	9	2	7	21.11	0.03	260.49	28547	Decatur PD
15	Madison	Huntsville	S-53	307.4	312.4	9	0	9	20	0.03	357.8	39211	Huntsville PD
16	Madison	Rural Madison	S-53	328.5	333.5	10	0	10	20	0.1	98.68	10814	ALEA - Huntsville Post
17	Tuscaloosa	Rural Tuscaloosa	S-69	137.1	142.1	9	0	9	20	0.04	241.47	26462	ALEA - Tuscaloosa Post
18	Madison	Huntsville	S-2	86	91	13	1	12	19.23	0.04	328.64	36015	Madison PD
19	Morgan	Decatur	S-3	354	359	12	0	12	19.17	0.05	265.34	29078	Decatur PD
20	Madison	Huntsville	S-1	329.2	334.2	9	0	9	18.89	0.03	335.13	36727	Huntsville PD
21	Jefferson	Mountain Brook	S-38	0.8	5.8	15	0	15	18.67	0.02	665.04	72881	Mountain Brook PD
22	Tuscaloosa	Northport	S-6	40.1	45.1	10	0	10	18	0.04	228.85	25079	Northport PD
23	Baldwin	Gulf Shores	S-59	1	6	10	0	10	18	0.03	328.87	36041	Gulf Shores PD
24	Tuscaloosa	Northport	S-13	194.4	199.4	11	0	11	16.36	0.03	421.96	46242	Northport PD
25	Tuscaloosa	Tuscaloosa	S-215	2.2	7.2	13	0	13	16.15	0.12	112.34	12311	Tuscaloosa PD
26	Tuscaloosa	Tuscaloosa	S-6	45.4	50.4	16	0	16	15.63	0.05	354.1	38805	Tuscaloosa PD
27	Jefferson	Hoover	S-3	261.7	266.7	9	0	9	15.56	0.03	331.8	36362	Hoover PD

Top 30 Mileposted State and Federal Route Locations (5 Miles in Length) in Alabama with 9 or More Impaired Driving Related Crashes Resulting in Injury or Fatality

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
28	Madison	Huntsville	S-1	334.7	339.7	13	0	13	13.85	0.03	442.16	48456	Huntsville PD
29	Elmore	Millbrook	S-14	156	161	11	0	11	13.64	0.05	214.42	23498	Millbrook PD
30	Tuscaloosa	Tuscaloosa	S-7	80.1	85.1	9	0	9	13.33	0.05	190.92	20923	Tuscaloosa PD

Top 77 Intersection Locations Statewide with 3 or More Total Impaired Driving Related Crashes

Region Breakdown

East Region	20	26.0%	North Region	27	35.1%
South Region	17	22.1%	Southeast Region	13	16.9%

East Region	**20**
Blount	0
Calhoun	0
Chambers	0
Cherokee	0
Chilton	0
Clay	0
Cleburne	0
Coosa	0
Elmore	0
Etowah	0
Jefferson	8
Lee	9
Macon	0
Randolph	0
St Clair	3
Shelby	0
Tallapoosa	0
Talladega	0

South Region	**17**
Baldwin	1
Choctaw	0
Clarke	0
Conecuh	0
Dallas	0
Escambia	1
Greene	0
Hale	0
Marengo	0
Mobile	15
Monroe	0
Perry	0
Sumter	0
Washington	0
Wilcox	0

North Region	**27**
Colbert	1
Cullman	0
Dekalb	0
Fayette	0
Franklin	0
Jackson	0
Lamar	0
Lauderdale	3
Lawrence	0
Limestone	0
Madison	23
Marion	0
Marshall	0
Morgan	0
Pickens	0
Walker	0
Winston	0

Southeast Region	**13**
Autauga	0
Barbour	0
Bibb	0
Bullock	1
Butler	0
Coffee	0
Covington	0
Crenshaw	0
Dale	0
Geneva	0
Henry	0
Houston	0
Lowndes	0
Montgomery	9
Pike	0
Russell	0
Tuscaloosa	3

Top 77 Intersection Locations Statewide with 3 or More Total Impaired Driving Related Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity	Node 1	Node 2	Route	Location	Agency ORI
1	Madison	Huntsville	3	1	2	33.33	8024	N/A	S-53	AL-53 at ARDMORE HWY	Huntsville PD
2	Montgomery	Montgomery	3	1	2	30	3165	N/A	S-8	AL-21 at AL-53	Montgomery PD
3	Jefferson	Birmingham	5	1	3	24	4660	N/A	S-7	AL-7 at 1ST AVE N	Birmingham PD
4	Tuscaloosa	Tuscaloosa	4	0	4	22.5	542	N/A	5558	CR-37 at HARGROVE RD E	Tuscaloosa PD
5	Lauderdale	Florence	8	1	5	18.75	1453	N/A	S-133	AL-133 at AL-157	Florence PD
6	Montgomery	Montgomery	4	1	2	17.5	5096	N/A	S-6	AL-53 at AL-6	Montgomery PD
7	Mobile	Prichard	10	0	7	17	2222	N/A	1111	NO DESCRIPTION AVAILABLE	Prichard PD
8	Madison	Huntsville	3	0	2	16.67	5576	N/A	6211	BLUE SPRING RD NW at MEDARIS RD NW	Huntsville PD
9	Madison	Rural Madison	3	0	2	13.33	7667	N/A	1324	CR-53 at BALTIMORE HILL RD NE	ALEA - Huntsville Post
10	Escambia	Rural Escambia	3	0	2	13.33	7360	N/A	1234	CR-14 at ALPINE RD	ALEA - Evergreen Post
11	Lauderdale	Florence	3	0	2	13.33	126	N/A	5074	N PINE ST at W TUSCALOOSA ST	Florence PD
12	Jefferson	Bessemer	3	0	2	13.33	878	N/A	S-5	AL-5 at AL-7	Bessemer PD
13	Madison	Huntsville	3	0	2	13.33	4047	N/A	S-2	RIDEOUT RD SR-255 at BRIDGE UNIVERSITY DR	Huntsville PD
14	Montgomery	Montgomery	3	0	3	13.33	8058	N/A	7513	NO DESCRIPTION AVAILABLE	Montgomery PD
15	Montgomery	Montgomery	3	0	2	13.33	4345	N/A	S-8	AL-21 at AL-53	Montgomery PD
16	Bullock	Union Springs	4	1	0	12.5	5050	N/A	1165	NO DESCRIPTION AVAILABLE	Union Springs PD
17	Montgomery	Rural Montgomery	5	0	3	12	8074	N/A	2046	CR-64 at CR-74	ALEA - Montgomery Post
18	Mobile	Prichard	5	0	3	10	1234	N/A	1234	AMBER ST at BEAR FORK RD	Prichard PD
19	Mobile	Mobile	5	1	0	10	1595	N/A	1842	GRELOT RD at HILLCREST RD	Mobile PD
20	Mobile	Mobile	3	0	3	10	9071	N/A	7101	AL-42 at N BROAD ST	Mobile PD
21	Shelby	Calera	3	0	2	10	7243	N/A	1092	NO DESCRIPTION AVAILABLE	Calera PD
22	Madison	Huntsville	3	0	1	10	998	N/A	5281	AL-53 at MEADOWBROOK DR SW	Huntsville PD
23	Jefferson	Homewood	3	0	2	10	180	N/A	1109	NO DESCRIPTION AVAILABLE	Homewood PD
24	Lee	Auburn	5	0	2	8	384	N/A	1146	N DEAN RD at E GLENN AVE	Auburn PD
25	Lee	Auburn	4	0	1	7.5	75	N/A	6077	AL-14 at OPELIKA RD	Auburn PD
26	Mobile	Mobile	4	0	2	7.5	9796	N/A	1346	SHORT at EDITH	Mobile PD

Top 77 Intersection Locations Statewide with 3 or More Total Impaired Driving Related Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity	Node 1	Node 2	Route	Location	Agency ORI
27	Montgomery	Montgomery	4	0	2	7.5	4481	N/A	S-6	AL-21 at AL-6	Montgomery PD
28	Mobile	Mobile	4	0	1	7.5	2340	N/A	5884	CR-70 at OLD SHELL RD	Mobile PD
29	Jefferson	Bessemer	3	0	1	6.67	913	N/A	S-5	AL-5 at AL-7	Bessemer PD
30	Baldwin	Fairhope	3	0	1	6.67	773	N/A	S-42	AL-42 at PARKER RD	Fairhope PD
31	Tuscaloosa	Tuscaloosa	3	0	2	6.67	290	N/A	5704	10TH AVE at 15TH ST	Tuscaloosa PD
32	Madison	Huntsville	3	0	1	6.67	41240	N/A	7608	NO DESCRIPTION AVAILABLE	Huntsville PD
33	Madison	Huntsville	3	0	2	6.67	2161	N/A	S-2	AL-2 at PULASKI PIKE NW	Huntsville PD
34	Montgomery	Montgomery	3	0	2	6.67	4286	N/A	8058	AL-21 at AL-53	Montgomery PD
35	Madison	Huntsville	3	0	1	6.67	2512	N/A	S-2	AL-2 at OLD MONROVIA RD NW	Huntsville PD
36	Madison	Huntsville	3	0	1	6.67	2796	N/A	S-53	BOB WALLACE AVE SW at MEMORIAL PKY SW	Huntsville PD
37	Mobile	Mobile	3	0	1	6.67	1587	N/A	5194	CR-37 at CODY RD S	Mobile PD
38	Lee	Auburn	3	0	1	6.67	92	N/A	6077	AL-14 at N DEAN RD	Auburn PD
39	Madison	Huntsville	5	0	2	6	2004	N/A	7228	DRAKE AVE at PATTON RD	Huntsville PD
40	Shelby	Hoover	4	0	1	5	8057	N/A	1354	US 280 at VALLEYDALE RD	Hoover PD
41	Madison	Huntsville	6	0	1	3.33	8087	N/A	1088	AL-2 at SLAUGHTER RD	Huntsville PD
42	Lee	Auburn	3	0	1	3.33	340	N/A	6077	AL-14 at OPELIKA RD	Auburn PD
43	Mobile	Mobile	3	0	1	3.33	679	N/A	1359	COTTAGE HILL RD at LLOYDS LN	Mobile PD
44	Jefferson	Birmingham	3	0	1	3.33	4248	N/A	6347	19TH AVE N at 84TH ST N	Birmingham PD
45	Madison	Madison	3	0	1	3.33	181	N/A	5163	EASTVIEW DR at HUGHES RD	Madison PD
46	Madison	Huntsville	3	0	1	3.33	619	N/A	S-1	AL-1 at AL-2	Huntsville PD
47	Mobile	Mobile	3	0	1	3.33	10966	N/A	5031	CHARING WOOD BLVD W at DEAD END	Mobile PD
48	Mobile	Mobile	3	0	1	3.33	2241	N/A	6200	CODY RD at OLD SHELL RD	Mobile PD
49	Mobile	Mobile	3	0	1	3.33	2260	N/A	1346	CR-56 at AIRPORT BLVD	Mobile PD
50	Madison	Huntsville	3	0	1	3.33	1231	N/A	5932	AL-53 at JORDAN LN NW	Huntsville PD
51	Lee	Auburn	4	0	1	2.5	375	N/A	6077	AL-14 at DEKALB ST	Auburn PD
52	Lee	Auburn	4	0	1	2.5	834	N/A	6078	AL-147 at AL-267	Auburn PD
53	Mobile	Mobile	4	0	1	2.5	2217	N/A	1346	CR-56 at AIRPORT BLVD	Mobile PD

Top 77 Intersection Locations Statewide with 3 or More Total Impaired Driving Related Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity	Node 1	Node 2	Route	Location	Agency ORI
54	Madison	Huntsville	4	0	1	2.5	2356	N/A	S-53	AL-2 at AL-53	Huntsville PD
55	Jefferson	Homewood	4	0	1	2.5	9926	N/A	2714	NO DESCRIPTION AVAILABLE	Homewood PD
56	Lee	Auburn	5	0	0	0	934	N/A	5093	AL-14 at W GLENN AVE	Auburn PD
57	Lee	Auburn	5	0	0	0	315	N/A	5047	MAGNOLIA AVE at SR 147 COLLEGE ST	Auburn PD
58	Madison	Huntsville	4	0	0	0	2681	N/A	S-2	AL-2 at N LOOP RD NW	Huntsville PD
59	Shelby	Hoover	4	0	0	0	93	N/A	1250	RIVERCHASE PKWY E at VALLEYDALE RD	Hoover PD
60	Mobile	Mobile	4	0	0	0	4196	N/A	S-16	AL-16 at AL-42	Mobile PD
61	Tuscaloosa	Tuscaloosa	4	0	0	0	1105	N/A	5698	AL-215 at 12TH AVE	Tuscaloosa PD
62	Madison	Madison	4	0	0	0	539	N/A	1005	NO DESCRIPTION AVAILABLE	Madison PD
63	Madison	Madison	4	0	0	0	41	N/A	1005	AL-20 at MADISON BLVD	Madison PD
64	Montgomery	Montgomery	4	0	0	0	4370	N/A	S-6	AL-21 at AL-53	Montgomery PD
65	Lauderdale	Florence	3	0	0	0	1324	N/A	1125	AL-157 at AL-17	Florence PD
66	Madison	Huntsville	3	0	0	0	1731	N/A	5524	HOOD RD SW at KNIGHT RD SW	Huntsville PD
67	Colbert	Sheffield	3	0	0	0	386	N/A	5333	AL-184 at 11TH AVE	Sheffield PD
68	Madison	Huntsville	3	0	0	0	61	N/A	1028	SALLY HAMNER RD at NO DESCRIPTION AVAILABLE	Huntsville PD
69	Jefferson	Bessemer	3	0	0	0	1870	N/A	2714	AL-150 at LAKESHORE PKY	Bessemer PD
70	Mobile	Mobile	3	0	0	0	3832	N/A	6827	CR-56 at HOUSTON ST	Mobile PD
71	Lee	Rural Lee	3	0	0	0	7685	N/A	1212	NO DESCRIPTION AVAILABLE	ALEA - Opelika Post
72	Madison	Huntsville	3	0	0	0	2065	N/A	7219	DRAKE AVE SW at TRIANA BLVD SW	Huntsville PD
73	Montgomery	Montgomery	3	0	0	0	15366	N/A	1726	NO DESCRIPTION AVAILABLE	Montgomery PD
74	Jefferson	Birmingham	3	0	0	0	44813	N/A	S-38	NO DESCRIPTION AVAILABLE	Birmingham PD
75	Madison	Huntsville	3	0	0	0	8150	N/A	S-2	ROCKHOUSE RD SW at SWANCOTT RD SW	Huntsville PD
76	Madison	Huntsville	3	0	0	0	209	N/A	S-1	AL-1 at AL-2	Huntsville PD
77	Mobile	Mobile	3	0	0	0	3387	N/A	6327	AL-16 at GOVERNMENT BLVD	Mobile PD

Top 10 Segment Locations Statewide with 3 or More Speeding Related Crashes Resulting in Injury or Fatality

Region Breakdown

East Region	1	10.0%	North Region	5	50.0%
South Region	2	20.0%	Southeast Region	2	20.0%

East Region	1
Blount	0
Calhoun	0
Chambers	1
Cherokee	0
Chilton	0
Clay	0
Cleburne	0
Coosa	0
Elmore	0
Etowah	0
Jefferson	0
Lee	0
Macon	0
Randolph	0
St Clair	0
Shelby	0
Tallapoosa	0
Talladega	0

South Region	2
Baldwin	0
Choctaw	0
Clarke	0
Conecuh	0
Dallas	0
Escambia	0
Greene	0
Hale	0
Marengo	0
Mobile	1
Monroe	1
Perry	0
Sumter	0
Washington	0
Wilcox	0

North Region	5
Colbert	0
Cullman	1
Dekalb	0
Fayette	0
Franklin	0
Jackson	0
Lamar	0
Lauderdale	0
Lawrence	0
Limestone	0
Madison	4
Marion	0
Marshall	0
Morgan	0
Pickens	0
Walker	0
Winston	0

Southeast Region	2
Autauga	0
Barbour	0
Bibb	0
Bullock	0
Butler	0
Coffee	0
Covington	0
Crenshaw	0
Dale	0
Geneva	0
Henry	0
Houston	0
Lowndes	1
Montgomery	0
Pike	0
Russell	0
Tuscaloosa	1

Top 10 Segment Locations Statewide with 3 or More Speeding Related Crashes Resulting in Injury or Fatality

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity	Node 1	Node 2	Route	Location	Agency ORI
1	Cullman	Rural Cullman	3	1	2	30	8836	8835	1707	CR-1354 at CR-1355 and CR-1354 at CR-1442	ALEA - Decatur Post
2	Lowndes	Rural Lowndes	3	1	2	30	7197	7654	1131	CR-33 at CR-35 and DENNIS DR at NO DESCRIP-TION AVAILABLE	ALEA - Montgomery Post
3	Tuscaloosa	Rural Tuscaloosa	3	1	2	30	10114	7203	1228	HAGLER COALING RD at SHANGRI LA RD and HAGLER COALING RD at HARGROVE RD E	ALEA - Tuscaloosa Post
4	Chambers	Rural Chambers	3	1	2	30	9247	9025	1388	CR-388 at CR-519 and CR-389 at CR-481	ALEA - Opelika Post
5	Madison	Rural Madison	3	0	3	26.67	9931	8188	1332	DUG HILL RD at RAINTREE RD and DUG HILL RD at KING DRAKE RD	ALEA - Huntsville Post
6	Madison	Rural Madison	3	1	2	26.67	7262	7263	1184	MCCOLLUM RD at STEGER RD and CR-53 at MOORES MILL RD	ALEA - Huntsville Post
7	Mobile	Rural Mobile	3	0	3	23.33	44898	8985	1679	CR-63 at CHUNCHULA GEORGETOWN RD and CR-63 at CHUNCHULA GEORGETOWN RD	ALEA - Mobile Post
8	Monroe	Rural Monroe	3	0	3	20	7449	7454	1319	ISSAC CREEK RD at LOCK & DAM RD and LOCK & DAM RD at MABIEN LAKE RD	ALEA - Evergreen Post
9	Madison	Rural Madison	3	0	3	20	7568	7495	1497	FORD CHAPEL RD at JEFF RD and FORD CHAPEL DR at FORD CHAPEL RD	ALEA - Huntsville Post
10	Madison	Rural Madison	3	0	3	20	7701	7700	1449	DARWIN RD at SCRUGGS DR and DARWIN RD at MACON LN	ALEA - Huntsville Post

Top 30 Segment Locations Statewide with 3 or More Total Impaired Driving Related Crashes

Region Breakdown

East Region	6	20.0%	North Region	14	46.7%
South Region	5	16.7%	Southeast Region	5	16.7%

East Region	6
Blount	1
Calhoun	0
Chambers	0
Cherokee	0
Chilton	0
Clay	0
Cleburne	0
Coosa	0
Elmore	0
Etowah	0
Jefferson	1
Lee	1
Macon	0
Randolph	0
St Clair	0
Shelby	2
Tallapoosa	1
Talladega	0

South Region	5
Baldwin	0
Choctaw	0
Clarke	0
Conecuh	0
Dallas	0
Escambia	0
Greene	0
Hale	0
Marengo	0
Mobile	5
Monroe	0
Perry	0
Sumter	0
Washington	0
Wilcox	0

North Region	14
Colbert	1
Cullman	1
Dekalb	0
Fayette	0
Franklin	0
Jackson	0
Lamar	0
Lauderdale	3
Lawrence	0
Limestone	0
Madison	9
Marion	0
Marshall	0
Morgan	0
Pickens	0
Walker	0
Winston	0

Southeast Region	5
Autauga	0
Barbour	0
Bibb	0
Bullock	0
Butler	0
Coffee	1
Covington	0
Crenshaw	0
Dale	0
Geneva	0
Henry	0
Houston	1
Lowndes	0
Montgomery	1
Pike	1
Russell	0
Tuscaloosa	1

Top 30 Segment Locations Statewide with 3 or More Total Impaired Driving Related Crashes

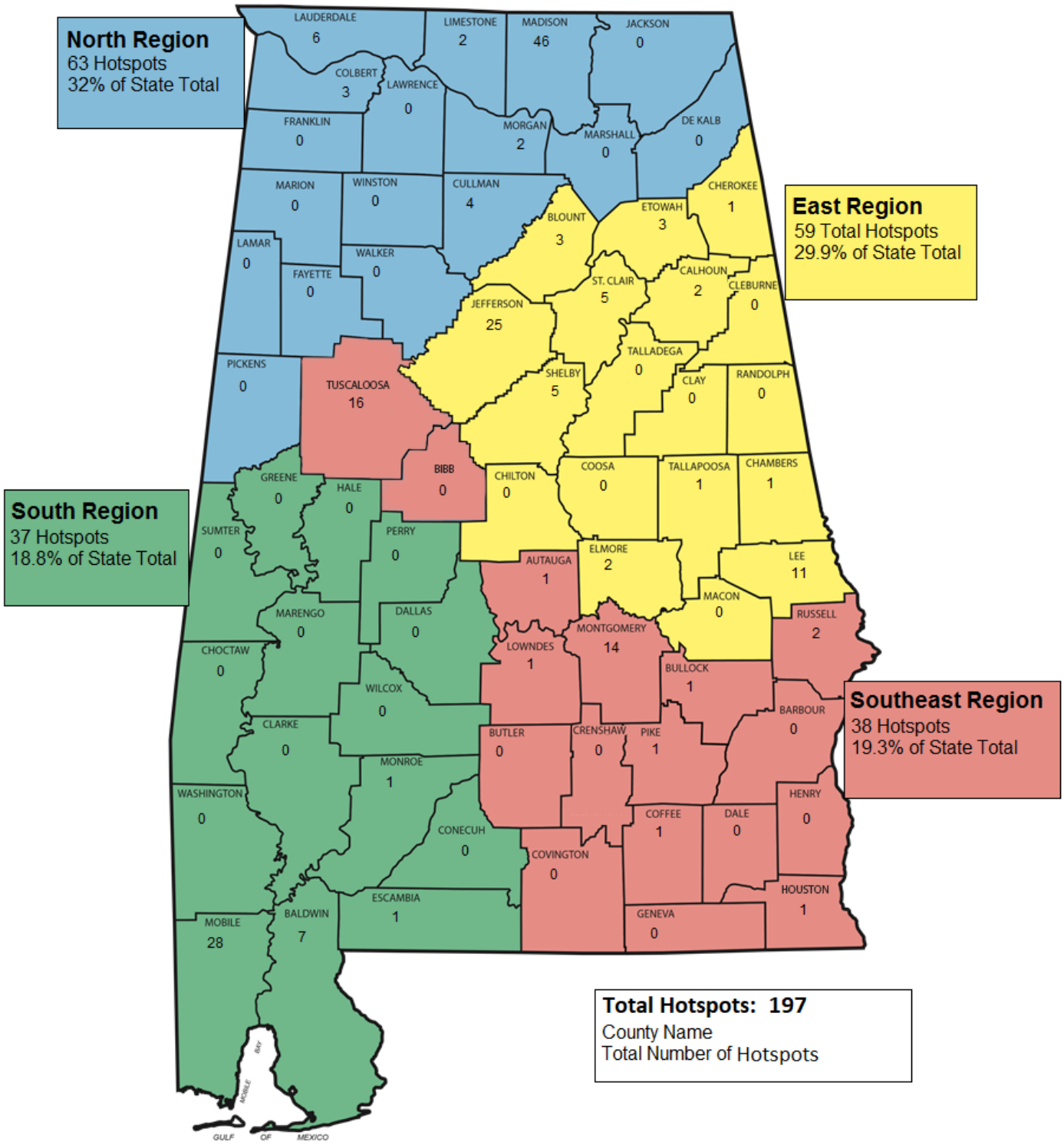
Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity	Node 1	Node 2	Route	Location	Agency ORI
1	Montgomery	Montgomery	3	2	1	43.33	2283	2343	8123	WEST BLVD SR-3 US-31 at B'HAM HWY and BIRMINGHAM HWY at TRINITY RD	Montgomery PD
2	Pike	Rural Pike	3	2	0	33.33	7232	7254	1139	CR-11 at CR-59 and CR-59 at CR-63	ALEA - Troy Post
3	Madison	Huntsville	3	1	1	26.67	5835	61	1042	BOB WADE LN NW at NORTHGATE DR NW and SALLY HAMNER RD at NO DESCRIPTION AVAILABLE	Huntsville PD
4	Tuscaloosa	Rural Tuscaloosa	3	1	1	23.33	7375	11461	1217	CR-37 at CR-85 and CR-85 at DAFFRON RD	ALEA - Tuscaloosa Post
5	St Clair	Rural St. Clair	3	0	3	23.33	7118	7119	1209	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
6	St Clair	Rural St. Clair	4	1	2	22.5	7703	7706	1003	CR-37 at CR-54 and CR-37 at KELLY CREEK RD	ALEA - Birmingham Post
7	Madison	Rural Madison	3	0	2	20	9931	8188	1332	DUG HILL RD at RAINTREE RD and DUG HILL RD at KING DRAKE RD	ALEA - Huntsville Post
8	Mobile	Rural Mobile	3	0	3	20	8985	11729	1679	CR-63 at CHUNCHULA GEORGETOWN RD and CR-63 at CHUNCHULA GEORGETOWN RD	ALEA - Mobile Post
9	Madison	Rural Madison	3	0	2	16.67	8218	12328	1207	CECIL ASHBURN DR SE at OLD BIG COVE RD and CLAUDIA DR SE at OLD BIG COVE RD	ALEA - Huntsville Post
10	Lauderdale	Rural Lauder-dale	3	0	2	16.67	7306	7277	1017	CR-189 at CR-5 and CR-14 at CR-2	ALEA - Sheffield Post
11	Madison	Huntsville	3	0	2	16.67	4459	4470	5834	BANKHEAD PKY NE at FEARN ST SE and FEARN ST SE at LOOKOUT DR SE	Huntsville PD
12	Madison	Rural Madison	3	0	2	13.33	55858	63042	1305	RIVER WALK TRL at WINCHESTER RD and RIVER WALK TRL at SMOKEY MDWS	ALEA - Huntsville Post
13	Mobile	Rural Mobile	3	0	2	13.33	9424	11688	1657	BOX RD at JAMAICA RD and AL-217 at BOX RD	ALEA - Mobile Post
14	Mobile	Rural Mobile	5	0	2	10	10129	10138	8860	AL-42 at CR-31 and CR-31 at HI WOOD CIR S	ALEA - Mobile Post
15	Coffee	Rural Coffee	4	0	2	10	7439	7519	1190	AL-27 at CR-259 and CR-157 at CR-259	ALEA - Dothan Post
16	Cullman	Rural Cullman	3	0	2	10	8352	9606	1435	CR-1117 at CR-1127 and CR-1127 at CR-1128	ALEA - Decatur Post
17	Lauderdale	Rural Lauder-dale	3	0	1	10	8432	8444	1054	CR-8 at CR-9 and AL-17 at CR-8	ALEA - Sheffield Post
18	Blount	Rural Blount	3	0	2	10	7155	16911	1033	CR-8 at JUSTICE RD and NO DESCRIPTION AVAILABLE	ALEA - Decatur Post
19	Jefferson	Hoover	3	0	1	10	10660	15247	1127	VERDURE LN at CHAPEL RD S JCT	Hoover PD
20	Houston	Dothan	3	0	1	10	2297	2296	1064	DENTON RD at LAURIE DR and DENTON RD at FAIRFIELD DR	Dothan PD
21	Madison	Rural Madison	4	0	1	7.5	7328	7292	1157	PATTERSON LN at PULASKI PIKE and MURPHY HILL RD at PATTERSON LN	ALEA - Huntsville Post
22	Madison	Huntsville	3	0	1	6.67	42550	7983	1272	NO DESCRIPTION AVAILABLE	Huntsville PD

Top 30 Segment Locations Statewide with 3 or More Total Impaired Driving Related Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity	Node 1	Node 2	Route	Location	Agency ORI
23	Lauder-dale	Rural Lauder-dale	4	0	1	5	7202	9724	1092	CR-16 at CR-200 and CR-41 at DOWDY RD	ALEA - Sheffield Post
24	Mobile	Saraland	3	0	1	3.33	365	306	8614	HARRIET ST at ROBERT WILLIAMS DR and CR-41 at CELESTE RD	Saraland PD
25	Madison	Madison	3	0	1	3.33	966	251	5059	SHELTON RD at WATER HILL RD and SHELTON RD at SUMMERVIEW DR	Madison PD
26	Talladega	Rural Talladega	4	0	0	0	7191	8040	1045	CR-25 at ODENA HEIGHTS CIR and CR-25 at OLD SYLACAUGA HWY	ALEA - Jacksonville Post
27	Lee	Auburn	4	0	0	0	933	934	5379	W MAGNOLIA AVE at WRIGHT ST and AL-14 at W GLENN AVE	Auburn PD
28	Madison	Rural Madison	3	0	0	0	7480	41111	1652	ALT HARVEST RD at OLD RAILROAD BED RD and PHILLIPS RD at NO DESCRIPTION AVAILA-BLE	ALEA - Huntsville Post
29	Mobile	Rural Mobile	3	0	0	0	10129	10133	8860	AL-42 at CR-31 and CR-31 at DOGWOOD DR	ALEA - Mobile Post
30	Colbert	Rural Colbert	3	0	0	0	8183	7282	1007	CR-1 at ALLSBORO RD and CR-1 at CR-4	ALEA - Sheffield Post

Hotspot Totals for Alabama

(Totals include Speeding Related and Impaired Driving Related Hotspots Found on Mileposted and Non-Mileposted Routes)



Total Hotspots for Alabama (197 Total Hotspots)

Region Breakdown

East Region	59	29.9%	North Region	63	32.0%
South Region	37	18.8%	Southeast Region	38	19.3%

East Region	59
Blount	3
Calhoun	2
Chambers	1
Cherokee	1
Chilton	0
Clay	0
Cleburne	0
Coosa	0
Elmore	2
Etowah	3
Jefferson	25
Lee	11
Macon	0
Randolph	0
St Clair	5
Shelby	5
Tallapoosa	1
Talladega	0

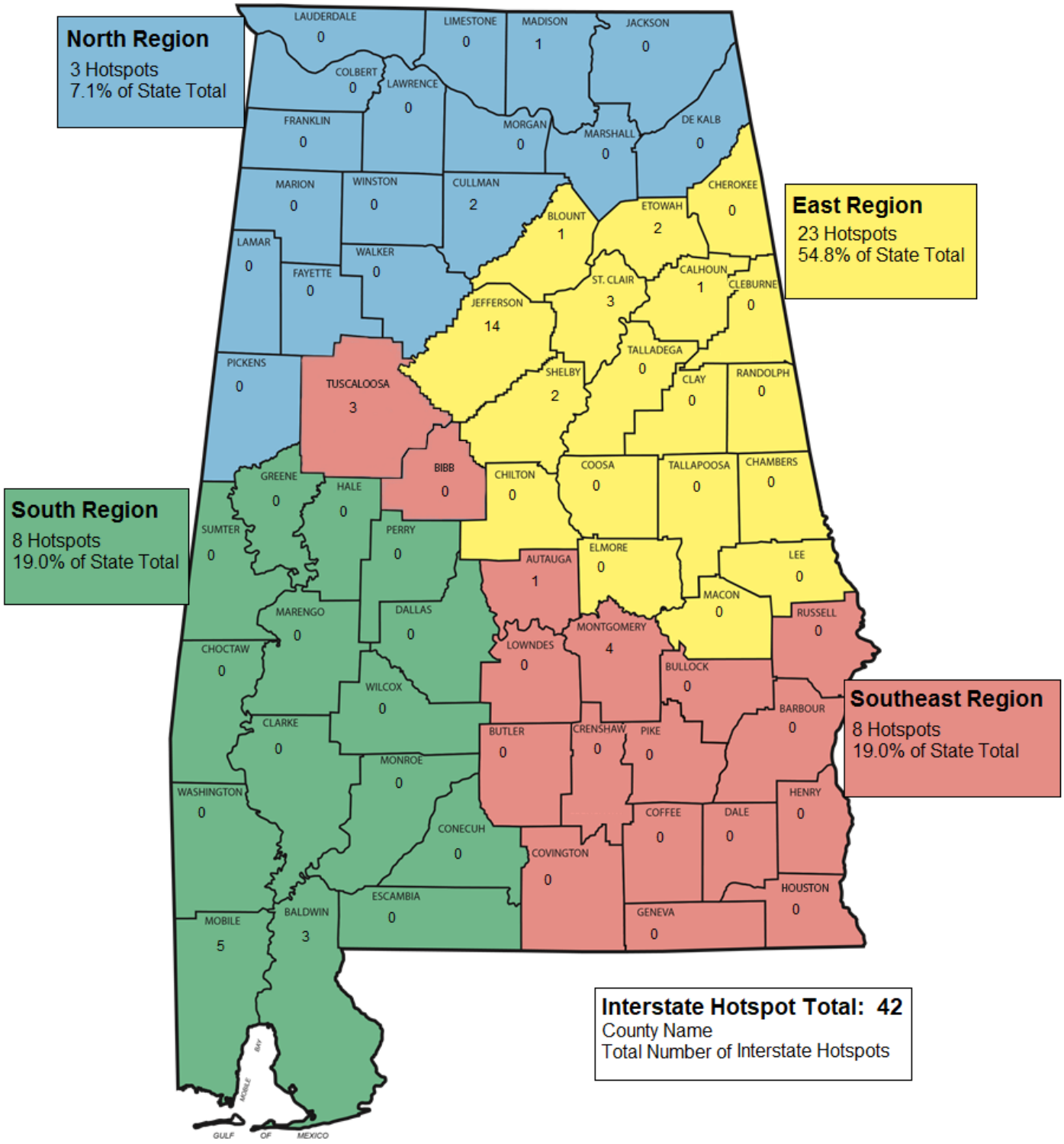
South Region	37
Baldwin	7
Choctaw	0
Clarke	0
Conecuh	0
Dallas	0
Escambia	1
Greene	0
Hale	0
Marengo	0
Mobile	28
Monroe	1
Perry	0
Sumter	0
Washington	0
Wilcox	0

North Region	63
Colbert	3
Cullman	4
Dekalb	0
Fayette	0
Franklin	0
Jackson	0
Lamar	0
Lauderdale	6
Lawrence	0
Limestone	2
Madison	46
Marion	0
Marshall	0
Morgan	2
Pickens	0
Walker	0
Winston	0

Southeast Region	38
Autauga	1
Barbour	0
Bibb	0
Bullock	1
Butler	0
Coffee	1
Covington	0
Crenshaw	0
Dale	0
Geneva	0
Henry	0
Houston	1
Lowndes	1
Montgomery	14
Pike	1
Russell	2
Tuscaloosa	16

Interstate Hotspot Totals for Alabama

(Totals include Speeding Related and Impaired Driving Related Hotspots
Occuring on Interstates Only)



Interstate Hotspots for Alabama (42 Total Hotspots)

Region Breakdown

East Region	23	54.8%	North Region	3	7.1%
South Region	8	19.0%	Southeast Region	8	19.0%

	Speed	Impaired	Total
East Region	**11**	**12**	**23**
Blount	1	0	1
Calhoun	1	0	1
Chambers	0	0	0
Cherokee	0	0	0
Chilton	0	0	0
Clay	0	0	0
Cleburne	0	0	0
Coosa	0	0	0
Elmore	0	0	0
Etowah	1	1	2
Jefferson	6	8	14
Lee	0	0	0
Macon	0	0	0
Randolph	0	0	0
St Clair	1	2	3
Shelby	1	1	2
Tallapoosa	0	0	0
Talladega	0	0	0

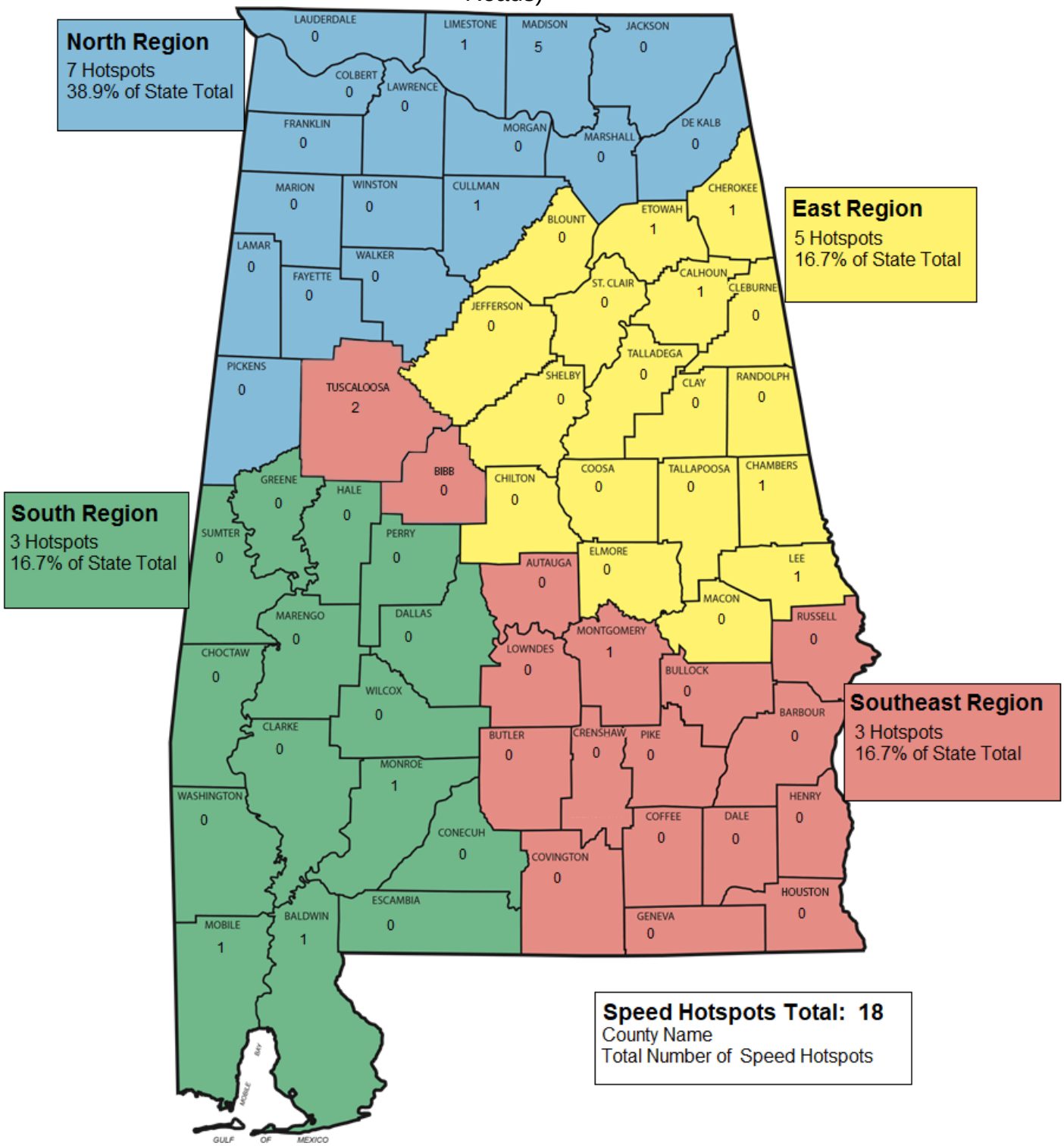
	Speed	Impaired	Total
North Region	**1**	**2**	**3**
Colbert	0	0	0
Cullman	1	1	2
Dekalb	0	0	0
Fayette	0	0	0
Franklin	0	0	0
Jackson	0	0	0
Lamar	0	0	0
Lauderdale	0	0	0
Lawrence	0	0	0
Limestone	0	0	0
Madison	0	1	1
Marion	0	0	0
Marshall	0	0	0
Morgan	0	0	0
Pickens	0	0	0
Walker	0	0	0
Winston	0	0	0

	Speed	Impaired	Total
South Region	**3**	**5**	**8**
Baldwin	1	2	3
Choctaw	0	0	0
Clarke	0	0	0
Conecuh	0	0	0
Dallas	0	0	0
Escambia	0	0	0
Greene	0	0	0
Hale	0	0	0
Marengo	0	0	0
Mobile	2	3	5
Monroe	0	0	0
Perry	0	0	0
Sumter	0	0	0
Washington	0	0	0
Wilcox	0	0	0

	Speed	Impaired	Total
Southeast Region	**4**	**4**	**8**
Autauga	1	0	1
Barbour	0	0	0
Bibb	0	0	0
Bullock	0	0	0
Butler	0	0	0
Coffee	0	0	0
Covington	0	0	0
Crenshaw	0	0	0
Dale	0	0	0
Geneva	0	0	0
Henry	0	0	0
Houston	0	0	0
Lowndes	0	0	0
Montgomery	1	3	4
Pike	0	0	0
Russell	0	0	0
Tuscaloosa	2	1	3

Speeding Related Hotspot Totals for State/Federal Roads and Non-Mileposted Roads in Alabama

(Totals include Speeding Related Hotspots Occuring on State/Federal Roads and Non-MP Roads)



Speeding Related Hotspots for State/Federal and Non-Mileposted Roads (18 Total Hotspots)

Region Breakdown

East Region	5	27.8%	North Region	7	38.9%
South Region	3	16.7%	Southeast Region	3	16.7%

	State/Fed	Non-MP	Total
East Region	**4**	**1**	**5**
Blount	0	0	0
Calhoun	1	0	1
Chambers	0	1	1
Cherokee	1	0	1
Chilton	0	0	0
Clay	0	0	0
Cleburne	0	0	0
Coosa	0	0	0
Elmore	0	0	0
Etowah	1	0	1
Jefferson	0	0	0
Lee	1	0	1
Macon	0	0	0
Randolph	0	0	0
St Clair	0	0	0
Shelby	0	0	0
Tallapoosa	0	0	0
Talladega	0	0	0

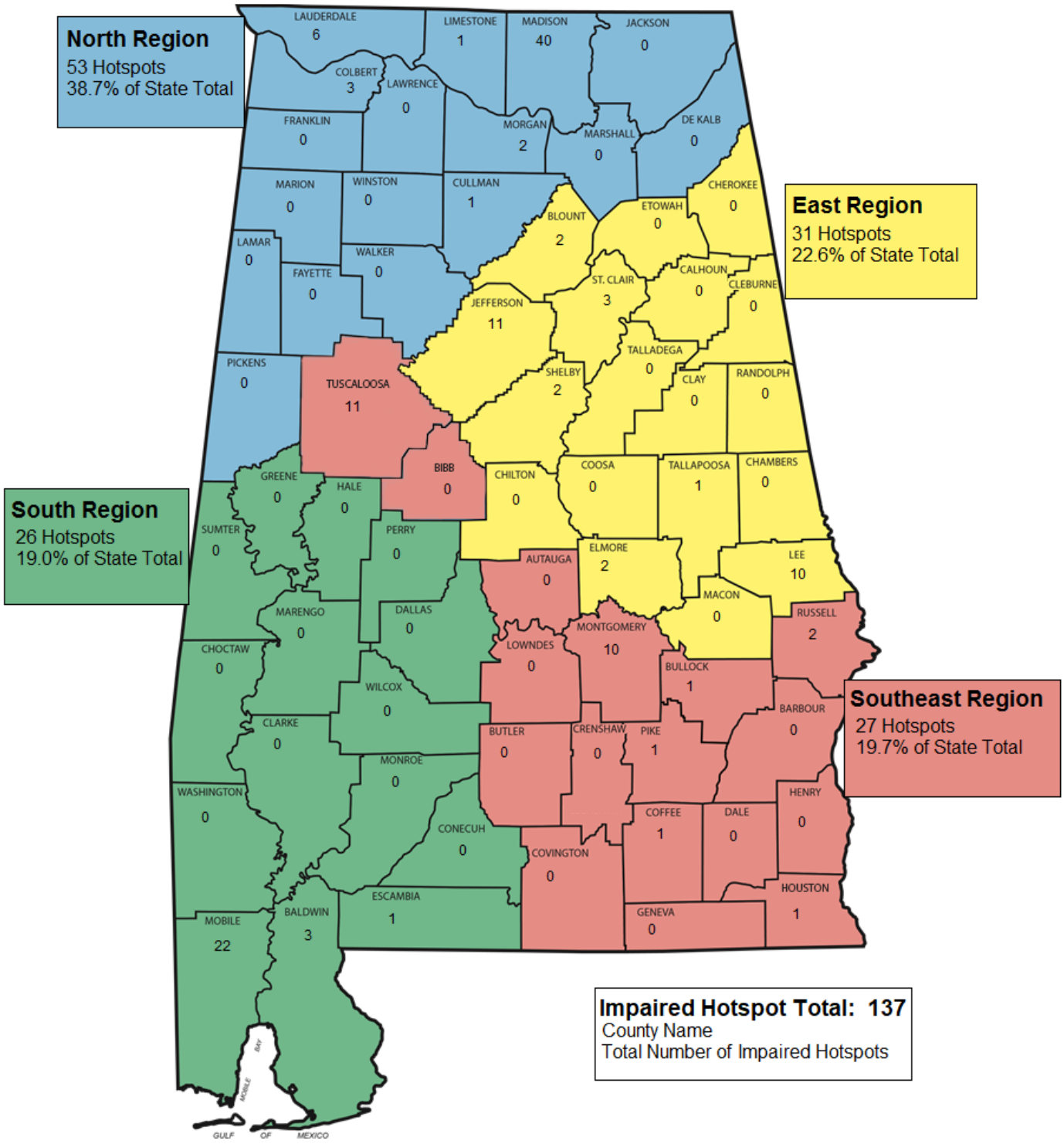
	State/Fed	Non-MP	Total
North Region	**2**	**5**	**7**
Colbert	0	0	0
Cullman	0	1	1
Dekalb	0	0	0
Fayette	0	0	0
Franklin	0	0	0
Jackson	0	0	0
Lamar	0	0	0
Lauderdale	0	0	0
Lawrence	0	0	0
Limestone	1	0	1
Madison	1	4	5
Marion	0	0	0
Marshall	0	0	0
Morgan	0	0	0
Pickens	0	0	0
Walker	0	0	0
Winston	0	0	0

	State/Fed	Non-MP	Total
South Region	**1**	**2**	**3**
Baldwin	1	0	1
Choctaw	0	0	0
Clarke	0	0	0
Conecuh	0	0	0
Dallas	0	0	0
Escambia	0	0	0
Greene	0	0	0
Hale	0	0	0
Marengo	0	0	0
Mobile	0	1	1
Monroe	0	1	1
Perry	0	0	0
Sumter	0	0	0
Washington	0	0	0
Wilcox	0	0	0

	State/Fed	Non-MP	Total
Southeast Region	**1**	**2**	**3**
Autauga	0	0	0
Barbour	0	0	0
Bibb	0	0	0
Bullock	0	0	0
Butler	0	0	0
Coffee	0	0	0
Covington	0	0	0
Crenshaw	0	0	0
Dale	0	0	0
Geneva	0	0	0
Henry	0	0	0
Houston	0	0	0
Lowndes	0	1	1
Montgomery	0	0	0
Pike	0	0	0
Russell	0	0	0
Tuscaloosa	1	1	2

Impaired Driving Related Hotspot Totals for State/Federal Roads and Non-Mileposted Roads in Alabama

(Totals include Impaired Driving Related Hotspots Occurring on Federal/State Roads and Non-Mileposted Roads)



Impaired Driving Related Hotspots for State/Federal and Non-Mileposted Roads (137 Total Hotspots)

Region Breakdown

East Region	31	22.6%	North Region	53	38.7%
South Region	26	19.0%	Southeast Region	27	19.7%

	State/ Fed	Non-MP	Inter-section	Total
East Region	**5**	**6**	**20**	**31**
Blount	1	1	0	2
Calhoun	0	0	0	0
Chambers	0	0	0	0
Cherokee	0	0	0	0
Chilton	0	0	0	0
Clay	0	0	0	0
Cleburne	0	0	0	0
Coosa	0	0	0	0
Elmore	2	0	0	2
Etowah	0	0	0	0
Jefferson	2	1	8	11
Lee	0	1	9	10
Macon	0	0	0	0
Randolph	0	0	0	0
St Clair	0	0	3	3
Shelby	0	2	0	2
Tallapoosa	0	1	0	1
Talladega	0	0	0	0

	State/ Fed	Non-MP	Inter-section	Total
North Region	**12**	**14**	**27**	**53**
Colbert	1	1	1	3
Cullman	0	1	0	1
Dekalb	0	0	0	0
Fayette	0	0	0	0
Franklin	0	0	0	0
Jackson	0	0	0	0
Lamar	0	0	0	0
Lauderdale	0	3	3	6
Lawrence	0	0	0	0
Limestone	1	0	0	1
Madison	8	9	23	40
Marion	0	0	0	0
Marshall	0	0	0	0
Morgan	2	0	0	2
Pickens	0	0	0	0
Walker	0	0	0	0
Winston	0	0	0	0

	State/ Fed	Non-MP	Inter-section	Total
South Region	**4**	**5**	**17**	**26**
Baldwin	2	0	1	3
Choctaw	0	0	0	0
Clarke	0	0	0	0
Conecuh	0	0	0	0
Dallas	0	0	0	0
Escambia	0	0	1	1
Greene	0	0	0	0
Hale	0	0	0	0
Marengo	0	0	0	0
Mobile	2	5	15	22
Monroe	0	0	0	0
Perry	0	0	0	0
Sumter	0	0	0	0
Washington	0	0	0	0
Wilcox	0	0	0	0

	State/ Fed	Non-MP	Inter-section	Total
Southeast Region	**9**	**5**	**13**	**27**
Autauga	0	0	0	0
Barbour	0	0	0	0
Bibb	0	0	0	0
Bullock	0	0	1	1
Butler	0	0	0	0
Coffee	0	1	0	1
Covington	0	0	0	0
Crenshaw	0	0	0	0
Dale	0	0	0	0
Geneva	0	0	0	0
Henry	0	0	0	0
Houston	0	1	0	1
Lowndes	0	0	0	0
Montgomery	0	1	9	10
Pike	0	1	0	1
Russell	2	0	0	2
Tuscaloosa	7	1	3	11

7.0 PLANNED ACTIVITIES

Several strategies for the coming year were laid out in Sections 5.3, 5.4 and 5.5, each of which dealt with the operation of Alabama Office of Highway Safety (AOHS) and the focus on the hotspot crashes that were identified by the problem identification and Evidence-Based Enforcement approaches. In this section these strategies will be grouped per their funding sources. Each strategy will be briefly discussed and the rationale for these projects from *NHTSA Countermeasures that Work* will be noted.

7.1 <u>402</u> Planned Activities:

7.1.1 Project Name: Planning and Administration

Project Number: PA-2018-00-00-00

Sub-recipient(s): ADECA/LETS

Total Project Amount: $300,000.00

Project Description: AOHS is charged with implementing the state's highway safety efforts to reduce traffic deaths, injuries and crashes. In order to properly coordinate the efforts from across the state, a certain amount of money is allotted each year for the state office located in Montgomery, Alabama.

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.

Funding Source (#1): Section 402 **Funding Source (#1) Amount**: $300,000.00

Additional Funding Source: **Additional Funding Source Amount:** NA

Match Amount: $300,000.00 **Indirect Cost**: $259,200.00

Maintenance of Effort: NA **Local Benefit**: NA

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.1.2 Project Name: Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Projects

Project Number: CP-2018-SP-CP-01

Sub-recipient(s): City of Opelika

Total Project Amount: $180,053.07

Project Description: There are four CTSP/LEL Regions across the state. For the coming year, each CTSP/LEL is charged with focusing on the hotspot locations outlined for their region. In order to coordinate the efforts within the four regions, a CTSP/LEL office is located in each region. Each of these regions is responsible for the problem areas within their counties and will supply reports and information back to the central office regarding the efforts taking place within their geographic area.

The major focus of the CTSP/LEL efforts is involved with assuring the effective execution of focused evidence-based selective enforcement on alcohol and speed hotspots. This covers three of the four basic strategies recommended in the *NHTSA Countermeasures that Work* document (Page 1-4) to reduce alcohol-impaired crashes and drinking and driving: (1) Deterrence: enact, publicize, enforce, and adjudicate laws prohibiting alcohol-impaired driving so that people choose not to drive impaired; (2) Prevention: reduce drinking and keep drinkers from driving; and (3) Communications and outreach: inform the public of the dangers of impaired driving and establish positive social norms that make driving while impaired unacceptable.

Funding Source (#1): Section 402

Funding Source (#1) Amount: $180,053.07

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $60,017.70

Indirect Cost: NA

Maintenance of Effort: NA

Local Benefit: $180,053.07

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑ Yes ☐ No

7.1.3 Project Name: Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Projects

Project Number: CP-2018-SP-CP-02

Sub-recipient(s): Enterprise State Community College

Total Project Amount: $164,797.31

Project Description: There are four CTSP/LEL Regions across the state. For the coming year, each CTSP/LEL is charged with focusing on the hotspot locations outlined for their region. In order to coordinate the efforts within the four regions, a CTSP/LEL office is located in each region. Each of these regions is responsible for the problem areas within their counties and will supply reports and information back to the central office regarding the efforts taking place within their geographic area.

The major focus of the CTSP/LEL efforts is involved with assuring the effective execution of focused evidence-based selective enforcement on alcohol and speed hotspots. This covers three of the four basic strategies recommended in the *NHTSA Countermeasures that Work* document (Page 1-4) to reduce alcohol-impaired crashes and drinking and driving: (1) Deterrence: enact, publicize, enforce, and adjudicate laws prohibiting alcohol-impaired driving so that people choose not to drive impaired; (2) Prevention: reduce drinking and keep drinkers from driving; and (3) Communications and outreach: inform the public of the dangers of impaired driving and establish positive social norms that make driving while impaired unacceptable.

Funding Source (#1): Section 402

Funding Source (#1) Amount: $164,797.31

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $54,932.44

Indirect Cost: NA

Maintenance of Effort: NA

Local Benefit: $164,797.31

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑ Yes ☐ No

7.1.4 Project Name: Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Projects

Project Number: CP-2018-SP-CP-03

Sub-recipient(s): Franklin County Commission

Total Project Amount: $182,837.72

Project Description: There are four CTSP/LEL Regions across the state. For the coming year, each CTSP/LEL is charged with focusing on the hotspot locations outlined for their region. In order to coordinate the efforts within the four regions, a CTSP/LEL office is located in each region. Each of these regions is responsible for the problem areas within their counties and will supply reports and information back to the central office regarding the efforts taking place within their geographic area.

The major focus of the CTSP/LEL efforts is involved with assuring the effective execution of focused evidence-based selective enforcement on alcohol and speed hotspots. This covers three of the four basic strategies recommended in the *NHTSA Countermeasures that Work* document (Page 1-4) to reduce alcohol-impaired crashes and drinking and driving: (1) Deterrence: enact, publicize, enforce, and adjudicate laws prohibiting alcohol-impaired driving so that people choose not to drive impaired; (2) Prevention: reduce drinking and keep drinkers from driving; and (3) Communications and outreach: inform the public of the dangers of impaired driving and establish positive social norms that make driving while impaired unacceptable.

Funding Source (#1): Section 402

Funding Source (#1) Amount: $182,837.72

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $60,945.91

Indirect Cost: NA

Maintenance of Effort: NA

Local Benefit: $182,837.72

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑ Yes ☐ No

7.1.5 Project Name: Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Projects

Project Number: CP-2018-SP-CP-04

Sub-recipient(s): Mobile County Commission

Total Project Amount: $175,143.00

Project Description: There are four CTSP/LEL Regions across the state. For the coming year, each CTSP/LEL is charged with focusing on the hotspot locations outlined for their region. In order to coordinate the efforts within the four regions, a CTSP/LEL office is located in each region. Each of these regions is responsible for the problem areas within their counties and will supply reports and information back to the central office regarding the efforts taking place within their geographic area.

The major focus of the CTSP/LEL efforts is involved with assuring the effective execution of focused evidence-based selective enforcement on alcohol and speed hotspots. This covers three of the four basic strategies recommended in the *NHTSA Countermeasures that Work* document (Page 1-4) to reduce alcohol-impaired crashes and drinking and driving: (1) Deterrence: enact, publicize, enforce, and adjudicate laws prohibiting alcohol-impaired driving so that people choose not to drive impaired; (2) Prevention: reduce drinking and keep drinkers from driving; and (3) Communications and outreach: inform the public of the dangers of impaired driving and establish positive social norms that make driving while impaired unacceptable.

Funding Source (#1): Section 402

Funding Source (#1) Amount: $175,143.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $58,381.01

Indirect Cost: NA

Maintenance of Effort: NA

Local Benefit: $175,143.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑ Yes ☐ No

7.1.6 Project Name: Support Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Projects

Project Number: CP-2018-SP-CP-05

Sub-recipient(s): ADECA/LETS

Total Project Amount: $75,000.00

Project Description: For additional support, we have a State Highway Safety Program Supervisor as well as an additional Program Manager who work as a centralized point of contact for regional CTSP/LEL offices and acts as liaison to municipal, county, state and federal officials or individuals with regard to the administration so that program goals and objectives of the 402 Highway Safety program are accomplished effectively within ADECA and NHTSA guidelines. The Program Supervisor or

Manager reviews, monitors and recommends program expenditures, assists in the development of program plans, budgets: reviews and recommends grants, contracts and related budgets, assists in the development and reporting of program policies and procedures as necessary to ensure compliance with appropriate rules, regulations and procedures.

Funding Source (#1): Section 402

Funding Source (#1) Amount: $75,000.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: NA

Local Benefit: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.1.7 Project Name: Support Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Projects

Project Number: CP-2018-SP-CP-06

Sub-recipient(s): ADECA/LETS

Total Project Amount: 60,000.00

Project Description: For additional support, we have a State Highway Safety Program Supervisor as well as an additional Program Manager who work as a centralized point of contact for regional CTSP/LEL offices and acts as liaison to municipal, county, state and federal officials or individuals with regard to the administration so that program goals and objectives of the 402 Highway Safety program are accomplished effectively within ADECA and NHTSA guidelines. The Program Supervisor or Manager reviews, monitors and recommends program expenditures, assists in the development of program plans, budgets: reviews and recommends grants, contracts and related budgets, assists in the development and reporting of program policies and procedures as necessary to ensure compliance with appropriate rules, regulations and procedures.

Funding Source (#1): Section 402

Funding Source (#1) Amount: $60,000.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA??

Maintenance of Effort: NA

Local Benefit: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐Yes ☑ No

7.1.8 Project Name: Evidence-Based Traffic Safety Enforcement Program Projects

Project Number: CP-2018-SP-PT-01

Sub-recipient(s): City of Opelika

Total Project Amount: $ 239,600.00

Project 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.

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.

Funding Source (#1): Section 402

Funding Source (#1) Amount: $239,600.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: NA

Local Benefit: $239,600.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.1.9 Project Name: Evidence-Based Traffic Safety Enforcement Program Projects

Project Number: CP-2018-SP-PT-02

Sub-recipient(s): Enterprise State Community College

Total Project Amount: $154,320.00

Project 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.

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.

Funding Source (#1): Section 402

Funding Source (#1) Amount: $154,320.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: NA

Local Benefit: $154,320.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑ Yes ☐ No

7.1.10 Project Name: Evidence-Based Traffic Safety Enforcement Program Projects

Project Number: CP-2018-SP-PT-03

Sub-recipient(s): Franklin County Commission

Total Project Amount: $255,840.00

Project 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.

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.

Funding Source (#1): Section 402

Funding Source (#1) Amount: $255,840.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: NA

Local Benefit: $255,840.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑ Yes ☐ No

7.1.11 Project Name: Evidence-Based Traffic Safety Enforcement Program Projects

Project Number: CP-2018-SP-PT-04

Sub-recipient(s): Mobile County Commission

Total Project Amount: $150,240.00

Project 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.

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.

Funding Source (#1): Section 402

Funding Source (#1) Amount: $150,240.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA??

Maintenance of Effort: NA

Local Benefit: $150,240.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑ Yes ☐No

7.1.12 Project Name: Evidence-Based Traffic Safety Enforcement Program Projects

Project Number: CP-2018-SP-PT-05

Sub-recipient(s): Alabama Law Enforcement Agency

Total Project Amount: $ 800,000.00

Project 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.

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.

Funding Source (#1): Section 402 **Funding Source (#1) Amount**: $800,000.00

Additional Funding Source (if needed): NA **Additional Funding Source Amount (if needed**): NA

Match Amount: $0.00 **Indirect Cost**: NA

Maintenance of Effort: NA **Local Benefit**: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑ Yes ☐ No

7.1.13 Project Name: Driver's License Suspension Appeals (DLSA) Program:

Project Number: CP-2018-SP-AL-01

Sub-recipient(s): Alabama Law Enforcement Agency

Total Project Amount: $ 35,000.00

Project Description: Plans are to fund the DLSA program through the Alabama Law Enforcement Agency (ALEA). The goal of this program is to assure the impaired driving case load is maintained at a manageable level.

Per *NHTSA Countermeasures that Work* (Page 1-12), many State Administrative License Revocation (ALR) and Administrative License Suspension (ALS) laws have been in place for decades, and much of the research examining the effectiveness of these laws is now quite old. However, there is no reason to conclude that it is not still valid. For example, a summary of 12 evaluations through 1991 found ALR and ALS laws reduced crashes of different types by an average of 13%. A more recent study examining the long-term effects of license suspension policies across the United States concluded that ALR reduces alcohol-related fatal crash involvement by 5%, saving an estimated 800 lives each year nationally.

Funding Source (#1): Section 402 **Funding Source (#1) Amount**: $35,000.00

Additional Funding Source (if needed): NA **Additional Funding Source Amount (if needed**): NA

Match Amount: $0.00 **Indirect Cost**: NA

Maintenance of Effort: NA **Local Benefit**: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.1.14 Summary of 402 Activities (MAP-21):

Total 402 Planned Spending: $2,772,831.10

Total Match Amount: $ 924,277.03

Local Benefit: $1,502,831.10 -54%

7.2 405b Planned Activities:

7.2.1 Project Name: Child Passenger Safety Training and Coordination

Project Number: M1PE-2018-HB-M1-01

Sub-recipient(s): Franklin County Commission

Total Project Amount: $ 155,000.00

Project Description: Alabama will have a state Child Passenger Safety Coordinator. We will provide training for first time technicians and re-certification for trained technicians. Fitting stations will be available to the public. Technicians will ensure the child passenger restraints are installed correctly and teach the caregivers how to do the installation themselves.

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.

Funding Source (#1): Section 405b

Funding Source (#1) Amount: $155,000.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $155,000.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.2.2 Project Name: Statewide "Click It or Ticket" campaign (High Visibility Enforcement)

Project Number: M1HVE-2018-HB-M1-02
Sub-recipient(s): City of Opelika

Total Project Amount: $ 64,740.00

Project Description: In addition to 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

The value of 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.

Funding Source (#1): Section 405b

Funding Source (#1) Amount: $64,740.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $64,740.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.2.3 Project Name: Statewide "Click It or Ticket" campaign (High Visibility Enforcement)

Project Number: M1HVE-2018-HB-M1-03

Sub-recipient(s): Enterprise State Community College

Total Project Amount: $ 41,740.00

Project Description: In addition to 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

The value of 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 88.5% in 2015.

Funding Source (#1): Section 405b

Funding Source (#1) Amount: $41,740.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $41,740.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.2.4 Project Name: Statewide "Click It or Ticket" campaign (High Visibility Enforcement)

Project Number: M1HVE-2018-HB-M1-04

Sub-recipient(s): Franklin County Commission

Total Project Amount: $ 53,720.00

Project Description: In addition to 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

The value of 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 88.5% in 2015.

Funding Source (#1): Section 405b

Funding Source (#1) Amount: $53,720.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $53,720.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.2.5 Project Name: Statewide "Click It or Ticket" campaign (High Visibility Enforcement)

Project Number: M1HVE-2018-HB-M1-05

Sub-recipient(s): Mobile County Commission

Total Project Amount: $ 39,800.00

Project Description: In addition to 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

The value of 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 88.5% in 2015.

Funding Source (#1): Section 405b **Funding Source (#1) Amount**: $39,800.00

Additional Funding Source (if needed): NA **Additional Funding Source Amount (if needed)**: NA

Match Amount: $0.00 **Indirect Cost**: NA

Maintenance of Effort: $0.00 **Local Benefit**: $39,800.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.2.6 Project Name: "Click It or Ticket" Campaign (Paid Media - High Visibility Enforcement)

Project Number: M1HVE-2018-HB-M1-06

Sub-recipient(s): Auburn University

Total Project Amount: $ 360,000.00

Project 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.

Funding Source (#1): Section 405b **Funding Source (#1) Amount**: $360,000.00

Additional Funding Source (if needed): NA **Additional Funding Source Amount (if needed)**: NA

Match Amount: $0.00 **Indirect Cost**: 32,285.71

Maintenance of Effort: $0.00 **Local Benefit**: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.2.7 Project Name: Statewide "Click It or Ticket" Surveys, Analysis, Certification and Reports

Project Number: M1OP-2018-OP-M1-01

Sub-recipient(s): University of Alabama

Total Project Amount: $ 197,850.58

Project 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. The UA-CAPS role will include the following:

- Contract for the conduction of annual pre and post observational surveys of vehicle seat belt usage and child restraint usage throughout Alabama according to the NHTSA-approved Sampling, Data Collection and Estimation Plan;
- Perform an evaluation of the program results using statistical comparative analyses of baseline observations before the STEP with post observations at a fixed time after it is completed;
- Calculate the official seat belt usage rate for the State;
- Collect narrative report results from all the various involved parties for their activities that contributed to the projects;
- Perform analysis of data generated through telephone polls, media campaign data and enforcement data;
- Compile the project report for "Click It or Ticket" 2018;
- Contract for a child restraint observational survey;
- Receive and statistically analyze data obtained;
- Compute the child restraint usage rate for the State;
- Collect reports on the other components of the project;
- Obtain the signed certification page and;
- Produce a comprehensive final report covering all aspects of the campaign.
- Manage the process for selecting new observational sites for approval for the 2018 campaign.
- Coordinate with the OHS throughout the NHTSA approval process.
- Work with and advise the observational survey vendor as they try out the new observational sites.

The *NHTSA Countermeasures that Work* references to Click It or Ticket have been presented above for those projects, and their specification are generally a mandatory part of the restraint-use effort.

Funding Source (#1): Section 405b

Funding Source (#1) Amount: $197,850.58

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: 39,570.12

Maintenance of Effort: $0.00

Local Benefit: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.2.8 Summary of 405b Activities (MAP-21)

Total Planned Spending: $732,000.00

Total Match Amount: $178,000.00

Local Benefit: $ 355,000.00

7.2.9 Summary of 405b Activities (FAST Act)

Total Planned Spending: $197,850.58

Total Match Amount: $49,462.65

Local Benefit: $ 0.00

7.3 405c Planned Activities:

7.3.1 Project Name: Traffic Safety Records Improvement Program

Project Number: M3DA-2018-HC-M3-01

Sub-recipient(s): University of Alabama

Total Project Amount: $ 701,275.84

Project Description: Projects in the Traffic Safety Information Systems (TSIS) areas are conducted with the concurrences of the Traffic Records Coordinating Committee (TRCC). AOHS will continue funding for the development of several projects including but not limited to:

- New Version of eCrash for MMUCC and improved Technology;
- In response to recommendations made by the Traffic Records Assessment that was completed in early 2017, the following projects will be initiated:
    - Quality control projects within each TSIS component,
    - Systems analysis and best practices improvements in the Crash, Citation/Adjudication and Roadway components,
    - Development of Data Dictionaries in the Crash, Roadway (MIRE) and EMS-Medical Surveillance components;
- Completion and roll-out of the Emergency Services Calls and Urgent-Care Environment (RES-CUE) ambulance run and EMS records data entry and data retrieval systems, assist vendors to test the external submissions to RESCUE, develop procedures and processes for scheduled submissions of RESCUE data to the National NEMSIS repository and continuing work on the EMS analysis portal that turns RESCUE data into information for decision-making,
- The public-facing SAFETY portal for all traffic safety information systems;
- Continued update to MapClick to respond to eGPS developments within ALDOT;
- Upgrades to MOVE to respond to technology advances;
- Organizing and developing CARE cloud datasets;
- Systems analysis and design study for a new version of eCite improved technology;
- Systems analysis for future design and planning.

These systems improve data quality, timeliness, uniformity and completeness.

Traffic Safety Information Systems are not covered by *NHTSA Countermeasures that Work.*

Funding Source (#1): Section 405c **Funding Source (#1) Amount**: $701,275.84

Additional Funding Source (if needed): NA **Additional Funding Source Amount (if needed**): NA

Match Amount: $0.00 **Indirect Cost**: $ 140,255.17

Maintenance of Effort: $0.00 **Local Benefit**: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.3.2 Project Name: Electronic Patient Care Reports (ePCR) Program:

Project Number: M3DA-2018-HC-M3-02

Sub-recipient(s): Alabama Department of Public Health

Total Project Amount: $ 60,000.00

Project Description: The Alabama Department of Public Health will utilize grant funds to purchase a maintenance and support contract for software to continue their process of electronic patient care reports in accordance with the National Emergency Medical Services Information System (NEMSIS) standards.

Traffic Safety Information Systems are not covered by *NHTSA Countermeasures that Work.*

Funding Source (#1): Section 405c **Funding Source (#1) Amount**: $60,000.00

Additional Funding Source (if needed): NA **Additional Funding Source Amount (if needed**): NA

Match Amount: $0.00 **Indirect Cost**: NA

Maintenance of Effort: $0.00 **Local Benefit**: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.3.3 Project Name: Summary of 405c Activities

Total Planned Spending: $761,275.84

Total Match Amount: $190,381.96

Local Benefit: $0.00

7.4 Project Name: 405d Planned Activities:

7.4.1 Project Name: Impaired Driving Grant Funds (High Visibility Enforcement Campaign):

Project Number: M5HVE-2018-HD-M5-01

Sub-recipient(s): City of Opelika

Total Project Amount: $ 204,190.00

Project Description: There will 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 fourth 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.

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.

Funding Source (#1): Section 405d

Funding Source (#1) Amount: $204,190.00

Additional Funding Source: NA

Additional Funding Source Amount: NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $204,190.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.4.2 Project Name: Impaired Driving Grant Funds (High Visibility Enforcement):

Project Number: M5HVE-2018-HD-M5-02

Sub-recipient(s): Enterprise State Community College

Total Project Amount: $ 140,980.00

Project Description: There will 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 fourth 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.

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.

Funding Source (#1): Section 405d

Funding Source (#1) Amount: $140,980.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $140,980.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.4.3 Project Name: Impaired Driving Grant Funds (High Visibility Enforcement):

Project Number: M5HVE-2018-HD-M5-03

Sub-recipient(s): Franklin County Commission

Total Project Amount: $ 225,540.00

Project Description: There will 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 fourth 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.

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.

Funding Source (#1): Section 405d

Funding Source (#1) Amount: $225,540.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $225,540.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.4.4 Project Name: Impaired Driving Grant Funds (High Visibility Enforcement):

Project Number: M5HVE-2018-HD-M5-04

Sub-recipient(s): Mobile County Commission

Total Project Amount: $ 129,290.00

Project Description: There will 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 fourth 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.

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.

Funding Source (#1): Section 405d

Funding Source (#1) Amount: $129,290.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $129,290.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.4.5 Project Name: Impaired Driving Grant Funds (High Visibility Enforcement):

Project Number: M5HVE-2018-HD-M5-05

Sub-recipient(s): Alabama Law Enforcement Agency

Total Project Amount: $ 400,000.00

Project Description: There will 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 fourth 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.

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.

Funding Source (#1): Section 405d

Funding Source (#1) Amount: $400,000.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.4.6 Project Name: Nationwide "Drive Sober or Get Pulled Over" Campaign (High Visibility Enforcement):

Project Number: M5HVE-2018-HD-M5-07

Sub-recipient(s): City of Opelika

Total Project Amount: $ 53,700.00

Project 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.

NHTSA Countermeasures that Work (Page 1-24) reviewed intensive alcohol selective enforcement efforts. The primary purpose of publicized saturation patrol programs is to deter driving after drinking by increasing the perceived risk of arrest. They recommend evidence-based 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.

Funding Source (#1): Section 405d

Funding Source (#1) Amount: $53,700.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $53,700.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.4.7 Project Name: Drug Recognition Expert Program (DRE)

Project Number: M5HVE-2018-ID-M5-03

Sub-recipient(s): Alabama Law Enforcement Agency

Total Project Amount: $ 367,567.72

Project 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.

Additionally, continuing education is vital for certified DREs. This program is still being established in Alabama and those being certified are new to DRE, so staying on top of the core issues is imperative. It is necessary to send qualifying DREs to a DRE instructor's school in order to be certified as a DRE instructor to effectively train and educate law enforcement officers, prosecutors, and other traffic safety stakeholders on drug impaired driving issues.

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.

Funding Source (#1): Section 405d

Funding Source (#1) Amount: $367,567.72

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.4.8 Project Name: Nationwide "Drive Sober or Get Pulled Over" Campaign (High Visibility Enforcement):

Project Number: M5HVE-2018-HD-M5-08

Sub-recipient(s): Enterprise State Community College

Total Project Amount: $ 48,140.00

Project 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.

NHTSA Countermeasures that Work (Page 1-24) reviewed intensive alcohol selective enforcement efforts. The primary purpose of publicized saturation patrol programs is to deter driving after drinking by increasing the perceived risk of arrest. They recommend evidence-based 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.

Funding Source (#1): Section 405d

Funding Source (#1) Amount: $48,140.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00 **Indirect Cost**: NA

Maintenance of Effort: $0.00 **Local Benefit**: $48,140.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.4.9 Project Name: Nationwide "Drive Sober or Get Pulled Over" Campaign (High Visibility Enforcement):

Project Number: M5HVE-2018-HD-M5-09

Sub-recipient(s): Franklin County Commission

Total Project Amount: $ 52,780.00

Project 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.

NHTSA Countermeasures that Work (Page 1-24) reviewed intensive alcohol selective enforcement efforts. The primary purpose of publicized saturation patrol programs is to deter driving after drinking by increasing the perceived risk of arrest. They recommend evidence-based 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.

Funding Source (#1): Section 405d **Funding Source (#1) Amount**: $52,780.00

Additional Funding Source (if needed): NA **Additional Funding Source Amount (if needed)**: NA

Match Amount: $0.00 **Indirect Cost**: NA

Maintenance of Effort: $0.00 **Local Benefit**: $52,780.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.4.10 Project Name: Nationwide "Drive Sober or Get Pulled Over" Campaign (High Visibility Enforcement):

Project Number: M5HVE-2018-HD-M5-10

Sub-recipient(s): Mobile County Commission

Total Project Amount: $ 45,380.00

Project 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.

NHTSA Countermeasures that Work (Page 1-24) reviewed intensive alcohol selective enforcement efforts. The primary purpose of publicized saturation patrol programs is to deter driving after drinking by increasing the perceived risk of arrest. They recommend evidence-based 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.

Funding Source (#1): Section 405d

Funding Source (#1) Amount: $45,380.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $45,380.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☑Yes ☐ No

7.4.11 Project Name: Traffic Safety Resource Prosecutor Program (TSRP):

Project Number: M5HVE-2018-HD-M5-11

Sub-recipient(s): Office of Prosecution Services

Total Project Amount: $ 171,278.23

Project Description: Goals for the TSRP program are 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:

- Practical Impaired Driving Course: Nuts & Bolts
- Handling the DUI Experts
- Impaired Driving Legal Updates
- Search & Seizure
- Jury Selection

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. NHTSA has developed a manual to assist new TSRPs (NHTSA, 2007b) and guidelines for developing JOLs (NHTSA, 2013a)."

Funding Source (#1): Section 405d

Funding Source (#1) Amount: $360,000.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: NA

Maintenance of Effort: $0.00

Local Benefit: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.4.11 Project Name: Impaired Driving campaign (Paid Media - High Visibility Enforcement)

Project Number: M5HVE-2018-ID-M5-01

Sub-recipient(s): Auburn University

Total Project Amount: $ 360,000.00

Project 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 fourth 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.

The *NHTSA Countermeasures that Work* review for this effort is discussed immediately above on page 89.

Funding Source (#1): FAST Act Section 405d **Funding Source (#1) Amount**: $360,000.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: $25,714.29

Maintenance of Effort: $0.00

Local Benefit: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.4.12 Project Name: Drive Sober or Get Pulled Over campaign (Paid Media - High Visibility Enforcement)

Project Number: M5HVE-2018-ID-M5-02

Sub-recipient(s): Auburn University

Total Project Amount: $ 360,000.00

Project Description: As a part of the nationwide impaired driving campaign to reduce impaired driving-related fatalities, Alabama will participate in "Drive Sober or Get Pulled Over" campaign starting in August and conclude on Labor Day. 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 theaters, as well as participate in an increased online presence via web ads and newer mediums such as iHeart Radio, Spotify and Pandora.

The *NHTSA Countermeasures that Work* review for this effort is discussed on page 89.

Funding Source (#1): FAST Act Section 405d **Funding Source (#1) Amount**: $360,000.00

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: $ 32,285.71

Maintenance of Effort: $0.00

Local Benefit: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.4.13 Summary of 405d Activities (MAP-21)

Total Planned Spending: $1,665,544.28

Total Match Amount: $367,819.56

Local Benefit: $900,000.00

7.4.14 Summary of 405d Activities (FAST Act)

Total Planned Spending: $1,087,567.72

Total Match Amount: $271,891.93

Local Benefit: $0.00

7.5 State Traffic Safety Trust Fund Planned Activities

7.5.1 Project Name: Support the University of Alabama-Center for Advanced Public Safety (UA-CAPS)

Project Number: 18-TF-TR-001

Sub-recipient(s): University of Alabama

Total Project Amount: $ 942,861.49

Project Description: Traffic Safety Information Systems (TSIS) are specifically excluded from *NHTSA Countermeasures that Work.* However, TSIS is a priority area in the recently-signed FAST Act, since it is well known and commonly accepted that without crash, citation, EMS, drivers' license, registration, and many other types of traffic records data, it is impossible to operate and manage an effective traffic safety program. This is true down to the project level for all of the countermeasures that will be implemented in FY 2018, and studies have been conducted and will continue to be updated continually and published on the http://www.safehomealabama.gov/SHAHome.aspx web site.

The University of Alabama-Center for Advanced Public Safety (UA-CAPS) has provided crash and traffic safety data analytics to AOHS as well as a wide range of traffic safety stakeholders throughout the state, and in some cases satisfying requests from federal agencies. Personnel still active in UA-CAPS have been active in traffic safety efforts for several decades. They developed the CARE system that has been used to process crash, citation and several other databases of interest in Alabama over this time. The following provides more specific examples of UA-CAPS activities in the traffic safety area that will continue into FY 2018:

- Preparing reports and grant applications as required;
- Providing answers for data requests from across the state and from Federal agencies that arise throughout the year;
- Providing technical support, training, and maintenance on CARE and other UA-CAPS software products, such as:
    - eCite;
    - eCrash;
    - eForms;
    - MapClick;
    - MOVE and many others.
- Maintaining a grant accounting system for the CTSPs and their reporting agencies (called CORE), which has eliminated the paper forms that the CTSPs and law enforcement agencies were using to report STEP enforcement grant expenditures;
- Continuing to update and maintain the SafeHomeAlabama.gov web portal so that it can continue to be totally comprehensive in keeping the entire traffic safety community aware of the most recent developments in traffic safety both in Alabama and nationally;
- Contracting to conduct (1) the Drive Sober public information and education (PI&E) sports event media campaign, including signage and public address announcements throughout the entirety of their season at applicable games or races; (2) the Huddle high school ticket safety outreach campaign; (3) the Drive Sober media evaluation phone surveys and (4) the NHTSA/GHSA phone survey on driver attitudes. Various coordination tasks will be involved in these projects as well.
- Assisting other PI&E efforts through the CAPS and SafeHomeAlabama websites;
- Operating Facebook and Twitter accounts to promote AOHS and NHTSA campaigns and causes; and
- Supporting AOHS with respect to the Traffic Records Coordinating Committee, and other committees and reports as needed, which includes the updating of the TSIS Five Year Strategic Plan to take into account the results of the recent Traffic Records Assessment.

Attitude and Awareness Survey

AOHS will use the NHTSA/GHSA survey questions to track driver attitudes and awareness concerning impaired driving, seat belt use, and speeding issues. This survey will be conducted by phone during the month of July. The attitude and awareness survey will be funded by the State Traffic Safety Trust Fund. It has the following sections:

Impaired Driving

A-1: In the past 60 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?
A-2: In the past 30 days, have you read, seen or heard anything about alcohol impaired driving (or drunk driving) enforcement by police?
A-3: What do you think the chances are of someone getting arrested if they drive after drinking?

Seat Belts

B-1: How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle or pick up?

B-2: In the past 60 days, have you read, seen or heard anything about seat belt law enforcement by police?
B-3: What do you think the chances are of getting a ticket if you don't wear your seat belt?

Speeding

S-1a: On a local road with a speed limit of 30 mph, how often do you drive faster than 35 mph – most of the time, half the time, rarely, never?
S-1b: On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph – most of the time, half the time, rarely, never?
S-2: In the past 30 days, have you read, seen or heard anything about speed enforcement by police?
S-3: What do you think the chances are of getting a ticket if you drive over the speed limit?

Funding Source (#1): Traffic Safety Trust Fund **Funding Source (#1) Amount** $ 942,861.49

Additional Funding Source (if needed): NA

Additional Funding Source Amount (if needed): NA

Match Amount: $0.00

Indirect Cost: $ 178,732.30

Maintenance of Effort: $942,861.49

Local Benefit: $0.00

Is this project a part of the TSEP? (§1300.11(d)(5)(i)): ☐ Yes ☑ No

7.5.2 Summary of State Funds

Total Planned Spending: $942,861.49

Total Match Amount: $0

Local Benefit: $0.00

Maintenance of Effort: $ 942,861.49

8.0 OCCUPANT PROTECTION PLAN FOR STATE OF ALABAMA
FY 2018 – SECTION 405b

8.1 Executive Summary

As part of the Alabama Office of Highway Safety (AOHS) traffic safety planning effort, a strategic Occupant Protection Plan 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 dedicate to occupant protection are allocated in an optimal manner 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 section for FY 2018. 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 FY2017 at 92.0% 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.

This executive summary will continue by summarizing the State's problem identification efforts in the occupant protection area. This is followed by a section on program management and legislation. The evidence-based enforcement programs will then be summarized, followed by a summary of the occupant protection for children program. The remaining two subsections consist of a brief review of the data and program evaluation function and a statement of cooperative efforts.

Problem Identification

Special problem identification studies are performed for occupant protection when any new issues arise, or for all countermeasures for which discretionary funds are expended. Section 8.3 reviews the special analytical procedures that are employed for occupant protection. The process is as follows:

- 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.
- Select the overall programs that will be implemented from a strategic point of view.
- Use further analytics to fine-tune the particular countermeasures that will be implemented, e.g., the specific locations for selective enforcement.

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.

Table 1 in Section 8.3 demonstrates, from the highest strategic point of view, one way in which the occupant protection plan integrates with AOHS overall planning function. An extract of Table 1 containing the top ten fatality issues is given below to illustrate the comparison of the general priorities that are developed based on the number of fatalities to which each of the traffic safety issues are related. It is important to recognize that the various categories in this table are not mutually exclusive. A more detailed explanation for each crash type issue is given in the State's HSP.

Clearly, to bring about the maximum improvement in traffic safety, available resources must be allocated to general areas and to particular countermeasures where they will have the greatest chances of reducing fatalities and severe injuries. Table 1 demonstrates the highest potential for countermeasures is in the crash type where there were restraint deficiencies. Potential alone, however, cannot determine optimal allocation. It is critical to evidence-based decisions, to know and apply the best estimate of the reduction of this potential that will be brought about by the given countermeasures that are under consideration. Both the *crash potential* for reduction and the *effectiveness of the proposed countermeasures* to a given category are necessary to determine the optimal countermeasures to apply.

Table 1 Extract: Top Ten Crash Types
Crash Data Organized by Top Fatality Causes – CY 2016

Crash Type (Causal Driver)	Fatal	Fatal %	Injuries	Injury %	PDO	PDO %	Total
1. Restraint Deficient*	464	4.38%	4,304	40.66%	5,818	54.96%	10,586
2. Impaired Driving	232	3.91%	2,342	39.51%	3,353	56.57%	5,927
3. Speeding	207	5.47%	1,720	45.48%	1,855	49.05%	3,782
4. Obstacle Removal	169	2.69%	2,136	34.05%	3,969	63.26%	6,274
5. Ped., Bicycle, School Bus	124	7.44%	957	57.44%	585	35.11%	1,666
6. Pedestrian	120	14.69%	658	80.54%	39	4.77%	817
7. License Status Deficiency	115	1.69%	2,216	32.54%	4,479	65.77%	6,810
8. Mature – Age > 64	115	0.81%	3,126	22.12%	10,893	77.07%	14,134
9. Motorcycle	108	6.41%	1,109	65.82%	468	27.77%	1,685
10. Youth – Age 16-20	107	0.45%	5,405	22.78%	18,219	76.77%	23,731

* All categories list number of crashes except for the "Restraint Deficient" and "Child Restraint Deficient" category. The restraint category cannot accurately be measured by number of crashes so it lists the number of unrestrained persons for each severity classification.

To facilitate the discussion, two terms must be clearly defined and used in Section 8.3:

- 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
- 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.

Section 8.3 describes the two types of problem identifications that were performed for restraint deficiencies:

- By locations with the highest RD and CRD hotspots (detailed in Section 8.8); and
- General information mining of the crash records to determine overrepresented characteristics of RD and CRD crashes in order to guide the selective enforcement and all other countermeasures applied (detailed in Section 8.9).

The full details and results of the two analyses are given in Sections 8.8 and 8.9, respectively.

Program Management and Legislation

Effective program management starts with overall vision, mission, goals, objectives and strategies. Considerable thought has been given of these and they are contained in Section 8.4 of the Occupant Protection Plan. These include the occupant protection performance metrics, contained in charts, that demonstrate the degree to which the goals set in terms of these metrics have been met. Generally these are contained in Sections 8.4.1 through 8.4.5. Following these sections are:

- Section 8.4.6 that contains the strategies for FY 2018,
- Section 8.4.7 that reviews the State's child restraint laws, and
- Section 8.4.8 that presents a review of Alabama's current restraint laws and those proposed for future enactment as well as the continued efforts to educate law makers as to the need for continued improvement in the current laws.

Proposed legislative activity has also been considered in the State's Strategic Highway Safety Plan Committee (SHSP, Page 41), which proposed a "primary seat belt law for all passengers" that would address this issue for all passengers in the back seat. The SHSP also addressed the issue of passengers in the rear of pickups that would require that passengers would only be allowed to ride in areas equipped with seat belts.

Legislation in child safety seat area 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 size-appropriate child restraint. This measure would address discrepancies concerning the proper age and weight for eliminating the use of a booster seat. 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. A complete list of current traffic safety legislation under consideration is given on: http://www.safehomealabama.gov/GovernmentAgencies/StateAgencies/ALLegislature.aspx

Evidence-Based Enforcement Programs (E-BEP)

Three major enforcement activities that are detailed in Section 8.5 show how the State's problem identification efforts translate themselves into specific countermeasures:

- General Evidence-Based Enforcement Programs (E-BEP) that will take place throughout the year and will specifically include restraint enforcement;
- Click It Or Ticket (CIOT), which is part of the highly focused National effort; and
- Child Restraint Evidence-Based Enforcement that will further supplement the Occupant Protection of Children Program, discussed next.

Occupant Protection for Children Program

Section 8.6 details the Occupant Protection for Children Program, which will continue to be administered by the State Child Passenger Safety (CPS) Coordinator. A general outline of this program follows:

- Training of "first time" technicians;
- Recertification of previously trained technicians;
- Inspection stations will continue to be made available to the public;
- Technicians ensuring that child passenger restraints are installed correctly and that caregivers know how to install them correctly;

- 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.

Data and Program Evaluation

Data availability and its analysis is essential to the effective management of the overall restraint program and its improvement. Section 8.7 demonstrates data used for problem identification and evaluation that is organized according to the following categories:

- 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.
- 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.
- Continued problem identification and evaluation. The efforts exemplified in the Problem Identification and presented in Sections 8.8 and 8.9 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, Eighth Edition, 2015*; which can be viewed at:
http://www.safehomealabama.gov/Portals/0/PDF/Countemeaures%20that%20Work%20811727.pdf
[This document will be henceforth referenced as "NHTSA Countermeasures that Work."]

Cooperative Efforts

No single agency can accomplish the State's occupant restraint efforts. Statewide cooperation throughout the traffic safety community is totally essential to accomplishing the plans set forth in this document. In an ongoing effort, AOHS maintains alliances with other agencies, advocate groups and technical organizations, the major ones which follow:

- Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Coordinators,
- The Alabama Law Enforcement Agency (ALEA),
- Local law enforcement,
- Alabama Department of Public Health (ADPH),
- Traffic Records Coordinating Committee (TRCC),
- State and local District Attorneys,
- The University of Alabama Center for Advanced Public Safety (UA-CAPS), and
- The full range of media.

It is with great appreciation that AOHS commends all of these entities in advancing the cause of traffic safety.

8.2 Introduction

This document presents the Alabama Office of Highway Safety (AOHS) State Occupant Protection Plan. This plan is developed within the environment of two other traffic safety plans within the state:

- The annually updated Highway Safety Plan (HSP), an evidence-based plan of action for traffic safety efforts within the State that is developed to assure that traffic safety resources are used in an optimal manner to bring about the maximum traffic safety benefits to the roadway users of the State. The HSP is the primary responsibility of AOHS.
- AOHS personnel also served on the steering committee for the development of the Alabama Strategic Highway Safety Plan (SHSP), and they are presently active in its implementation phase. The AOHS Highway Safety Plan (HSP) has been incorporated into the Alabama SHSP.

The major goals of both the HSP and the SHSP are to bring about the most effective statewide allocation of traffic safety resources, including funding, equipment and personnel.

The HSP reflects that seat belt and child safety seat usage can only be increased by a combination of legislation, usage requirements, enforcement, communication, education, and other incentive strategies. This is a mammoth task that can only be accomplished by means of statewide cooperative efforts throughout the traffic safety community. To accomplish this, AOHS has forged key partnerships that are briefly described below:

- Community Traffic Safety Program/Law Enforcement Liaison (CTSP/LEL) Coordinators, who live and have offices within their respective regions, and who build ongoing relationships with local and state level law enforcement who serve that region. In addition, they build relationships with all other traffic safety stakeholders in the local communities assuring coordination among the occupant protection efforts.
- The Alabama Law Enforcement Agency (ALEA) officers were the pilot implementers of systems such as eCrash, eCite and other innovations, providing a much more efficient system of law enforcement as well as a model for local acceptance of technology and the enforcement of occupant protection laws.
- Local law enforcement, including city police and county sheriffs; these partners are essential to all statewide and local occupant protection enforcement programs.
- Media provides continued support through their efforts to inform the public of all evidence-based enforcement and other occupant protection projects.
- Alabama Department of Public Health provides data and subject matter knowledge for Emergency Medical Services Information Systems (EMSIS) and trauma data integration and use, and they have been instrumental in the past in performing restraint-use surveys.
- Traffic Records Coordinating Committee (TRCC), which is a broad-based committee that represents all developers and users of traffic safety information systems, including those involved with occupant protection.
- State and local District Attorneys, who are involved to increase their level of readiness and proficiency for the effective prosecution of traffic related cases.
- The University of Alabama Center for Advanced Public Safety (UA-CAPS), which provides the information foundation for evidence-based decisions, including the HSP document; data sources including crash, citation, EMS runs and other databases to enable the AOHS and the CTSP/LEL Coordinators to be assured that their traffic safety resources are being allocated most effectively.

This document will begin by summarizing the results of an intensive problem identification that has been performed and is updated on a regular basis to guide the overall occupant protection strategies. It will go on to describe the occupant protection program management, followed by a section on each of the major planned programs. A final section is devoted to occupant protection data and program evaluation. The detailed results of the problem identification efforts are given in Sections 8.8 and 8.9.

8.3 Problem Identification

8.3.1 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 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.

Table 1: Top Fatality Causes - Alabama CY2016 Data

Crash Type (Causal Driver)	Fatal	Fatal %	Injuries	Injury %	PDO	PDO %	Total
1. Restraint Deficient*	464	4.38%	4,304	40.66%	5,818	54.96%	10,586
2. Impaired Driving	232	3.91%	2,342	39.51%	3,353	56.57%	5,927
3. Speeding	207	5.47%	1,720	45.48%	1,855	49.05%	3,782
4. Obstacle Removal	169	2.69%	2,136	34.05%	3,969	63.26%	6,274
5. Ped., Bicycle, School Bus	124	7.44%	957	57.44%	585	35.11%	1,666
6. Pedestrian	120	14.69%	658	80.54%	39	4.77%	817
7. License Status Deficiency	115	1.69%	2,216	32.54%	4,479	65.77%	6,810
8. Mature – Age > 64	115	0.81%	3,126	22.12%	10,893	77.07%	14,134
9. Motorcycle	108	6.41%	1,109	65.82%	468	27.77%	1,685
10. Youth – Age 16-20	107	0.45%	5,405	22.78%	18,219	76.77%	23,731
11. Distracted Driving	92	0.51%	4,742	26.43%	13,109	73.06%	17,943
12. Non-pickup Truck Involved	56	1.09%	865	16.80%	4,228	82.11%	5,149
13. Utility Pole	46	1.82%	937	37.15%	1,539	61.02%	2,522
14. Fail to Conform to S/Y Sign	32	0.42%	2,187	28.88%	5,355	70.70%	7,574
15. Vehicle Defects – All	21	0.54%	884	22.77%	2,978	76.69%	3,883
16. Construction Zone	18	0.61%	653	22.26%	2,263	77.13%	2,934
17. Vision Obscured – Env.	14	0.89%	428	27.14%	1,135	71.97%	1,577
18. Fail to Conform to Signal	10	0.21%	1,455	31.18%	3,202	68.61%	4,667
19. Child Restraint Deficient*	5	0.18%	348	12.26%	2,485	87.56%	2,838
20. Railroad Trains	5	7.81%	33	51.56%	26	40.63%	64
21. Bicycle	4	0.84%	207	43.49%	265	55.67%	476
22. School Bus	0	0.00%	96	16.33%	492	83.67%	588
23. Roadway Defects – All	0	0.00%	28	24.14%	88	75.86%	116

* 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:

- 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
- 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). 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 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 will be discussed in detail in Section 8.6. 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. 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 that were going 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 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. The goals set on a regional basis are in line with the goals and strategies laid out in this plan (see Section 8.4.2).

This section will continue by presenting the problem identification results.

8.3.2 Problem Identification Results

8.3.2.1 Evidence-Based Enforcement Program (E-BEP) Hotspot Analysis

For the FY 2018 analysis, data from three prior years (CY 2014-2016) were used to find what we will call "restraint-deficient hotspots" or RD hotspots. RD includes both adult and child restraint deficiencies. Child Restraint Deficient crashes (i.e., crashes in which one or more children are not restrained independently of whether the adults are restrained) will be indicated by CRD. The CRD hotspots were based on one year of data (CY 2016). The following table gives the numbers of hotspots found according to the various location types and criteria.

Hotspot Target	Location Type	Number of Hotspots	Criteria
General	Mileposted	109	>=20 RD Crashes in 10 Miles
General	Intersection	101	>=4 RD Crashes at Intersection
General	Segment	79	>=4 RD Crashes on Segment
Child Restraint	Mileposted	78	>=4 CRD Crashes in 10 Miles
Child Restraint	Intersection	91	>=2 CRD Crashes at Intersection
Child Restraint	Segment	33	>=2 CRD Crashes on Segment
TOTAL		**491**	

The CTSP/LEL Coordinators are required to focus their plans primarily on restraint-deficient hotspot locations identified for their respective regions. These were defined, listed and mapped for ease of identification by their respective local police agencies. The details for this plan are given in Section 8.8.

Table 2 illustrates the organization of these hotspots by county and region for implementation by the CTSP/LELs, with a corresponding column for crashes by severity. Table 3 presents a summary of these locations for each of the regions, with an indication of the number of crashes by severity for each region. It is important to recognize that the hotspot analyses are intended to target those locations that have the highest potential for restraint-deficient crash improvement.

Table 2. Mileposted Hotspots by County within Region

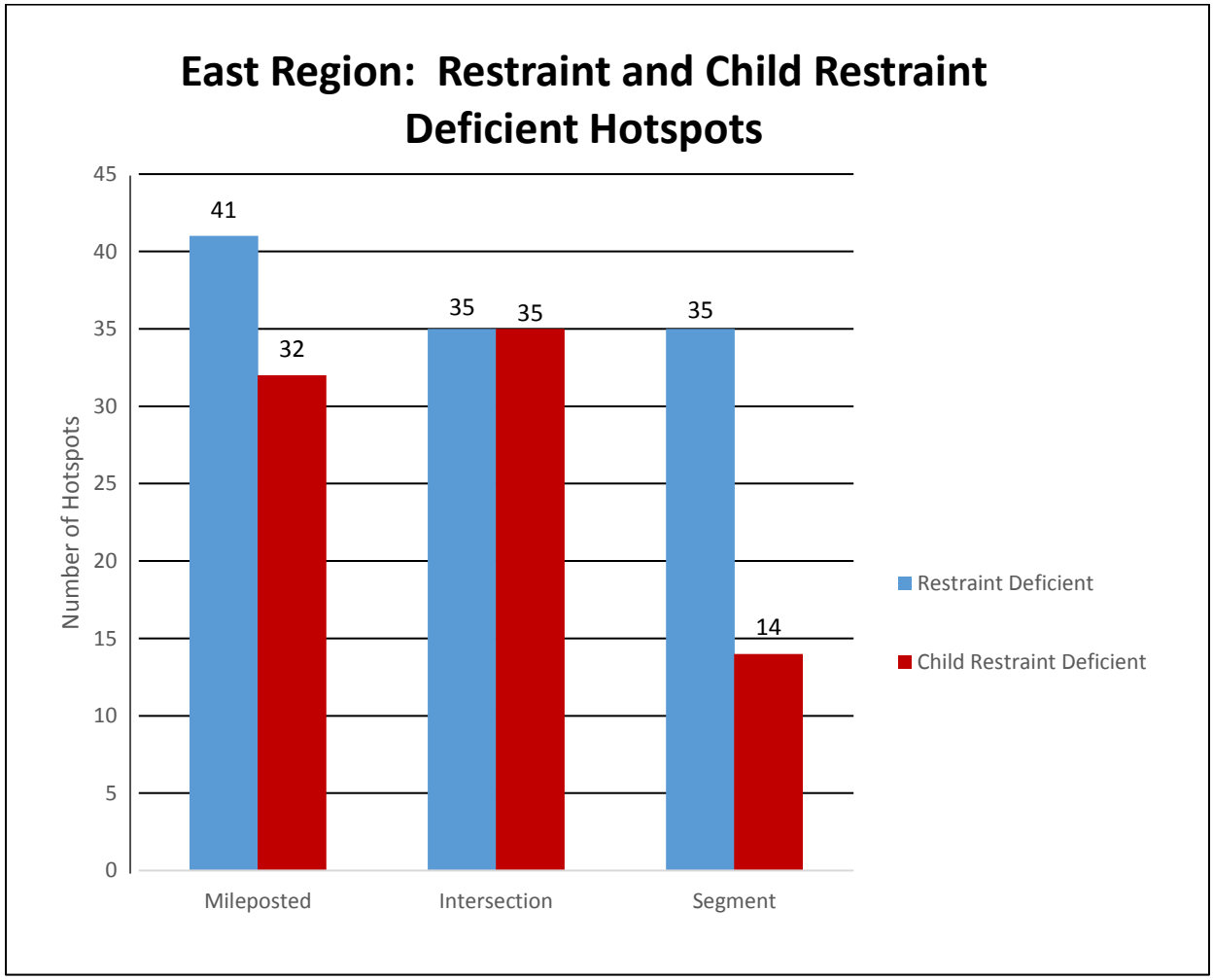
Region	County	Hotspots	Fatal Crashes	Injury Crashes	Total Crashes
	TOTAL	*491*	*1,245*	*10,869*	*20,675*
East		**192**	**366**	**3560**	**6910**
	Blount	3	16	166	277
	Calhoun	15	23	364	616
	Chambers	1	13	91	164
	Cherokee	0	14	80	136
	Chilton	9	24	145	275
	Clay	0	2	35	54
	Cleburne	0	5	57	94
	Coosa	0	8	40	90
	Elmore	5	27	157	314
	Etowah	7	26	278	470
	Jefferson	79	82	928	2103
	Lee	11	15	241	473
	Macon	7	12	76	145
	Randolph	0	9	72	116
	Shelby	27	25	252	528
	St Clair	13	20	232	368
	Talladega	13	32	248	479
	Tallapoosa	2	13	98	208
North		**112**	**297**	**2984**	**5602**
	Colbert	6	10	154	274
	Cullman	6	34	241	501
	Dekalb	2	21	191	356
	Fayette	0	4	45	81
	Franklin	1	9	95	174
	Jackson	10	21	198	357
	Lamar	0	6	43	69
	Lauderdale	7	18	194	374
	Lawrence	0	12	82	158
	Limestone	6	25	197	345
	Madison	46	35	586	1129
	Marion	0	9	91	150
	Marshall	18	25	256	524
	Morgan	7	17	242	469
	Pickens	0	10	46	82
	Walker	3	32	263	450
	Winston	0	9	60	109

South		**91**	**292**	**2133**	**4079**
	Baldwin	28	37	391	728
	Choctaw	0	7	51	97
	Clarke	0	12	104	167
	Conecuh	1	13	82	157
	Dallas	1	19	107	206
	Escambia	2	25	129	252
	Greene	1	8	47	88
	Hale	0	7	59	99
	Marengo	0	10	65	105
	Mobile	58	107	832	1721
	Monroe	0	15	105	189
	Perry	0	3	19	32
	Sumter	0	10	36	67
	Washington	0	7	61	98
	Wilcox	0	12	45	73
Southeast		**96**	**290**	**2192**	**4084**
	Autauga	3	21	114	202
	Barbour	2	9	84	135
	Bibb	0	9	41	100
	Bullock	0	9	25	44
	Butler	4	16	77	144
	Coffee	3	17	118	233
	Covington	0	11	113	212
	Crenshaw	0	4	59	104
	Dale	2	13	85	167
	Geneva	0	6	87	145
	Henry	0	5	41	63
	Houston	10	23	218	373
	Lowndes	0	6	57	86
	Montgomery	21	46	373	694
	Pike	3	16	106	210
	Russell	7	20	112	211
	Tuscaloosa	41	59	482	961

Table 3. Summary of Hotspots by Crash and Region

	Hotspots	Regional	Fatal Crashes	Regional	Injury Crashes	Regional	Total Crashes	Regional
East	192	39.10%	366	29.40%	3560	32.75%	6910	33.42%
North	112	22.81%	297	23.86%	2984	27.45%	5602	27.10%
South	91	18.53%	292	23.45%	2133	19.62%	4079	19.73%
Southeast	96	19.55%	290	23.29%	2192	20.17%	4084	19.75%
TOTAL	491		1,245		10,869		20,675	

Analyses similar to mileposted routes were performed for non-mileposted roadways to obtain the non-mileposted intersections and segments that had the largest number of restraint deficient crashes in the state.



Display 2. Number of Hotspots Found in the East Region by Type

As an example, Display 2 is a graphic representation of the various hotspot types compared by the roadway type and also by the restraint deficiency type for the East Region (an example of one of four regions). Officers use these hotspot specifications as a guide in targeting the general locations for restraint deficiencies. All of these analyses were subdivided by region so that the local CTSP/LEL Coordinators could effectively administer their respective programs.

The entire set of hotspot analyses were repeated for Child Restraint Deficient crashes. Details of the specific locations found during the problem identification analyses are given in Section 8.8. The analytical arrangement is as follows:

- Region
  - All restraint deficiencies
    - Mileposted
    - Intersections
    - Non-mileposted segments
  - Child restraint deficiencies
    - Mileposted
    - Intersections
    - Non-mileposted segments

8.3.2.2 Other Problem Identification Analysis Results

A detailed problem identification to determine the "who, what, where and why" of restraint-deficient crashes is given in Section 8.9. This information was forwarded to the CTSP/LEL Coordinators so that they could provide guidance in the evidence-based enforcement and public information aspects of the various projects. The following summarizes these results:

The following summarizes the findings of the analysis:

- Geographical Factors
  - Counties with the greatest overrepresentation factors for unrestrained driver crashes include Walker, Cullman, Jackson, Talladega, DeKalb and Escambia.
  - The number of crashes involving drivers who use no restraints is greatly overrepresented in rural areas in comparison to the urban areas. The odds ratio for rural areas is well over twice what would be expected if rural and urban restraint use were the same.
  - The most overrepresented (worst) areas are the rural county areas in Walker, Mobile, Cullman, Talladega Counties.
  - The most underrepresented (best) cities are Birmingham, Mobile, Montgomery, Huntsville and Tuscaloosa.
  - Crash incidents with no driver restraints being used are greatly overrepresented on county highways, with 2.7 times the expected number of crashes. County and State were the only roadway classification that were overrepresented.
  - In the analysis of locale, crashes involving no restraints are most commonly overrepresented in open country areas.

- Time Factors
  - The weekend days are the most overrepresented days of the week for crashes in which drivers did not use restraints. This correlates highly with impaired driving crashes.
  - In the evaluation of time of day, overrepresentation peaks during the 12 Midnight to 5 AM period and then tapers off, falling back below crashes involving causal drivers who use restraints in the 7 AM to 7 PM time periods. Additional cross-tabulations were performed for crashes involving injury.

- Analysis of Time of Day by Day of Week.
    - 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. Three analyses were performed and compared for three target groups: rural crashes, crashes caused by drivers 16-20, and crashes caused by drivers 21-25. While the rural and 21-25 crosstabs were expected to correlate very heavily with impaired driving, it was found that the 16-20 year old causal drivers were not very much different. It seems clear that while they might not be involved with alcohol or drugs, they are out and engaged in risk-taking practices at the same time as the impaired driving by their older driver counterparts, further compounding the problem at these times. The drivers 16-20 would also reasonably be expected to be overrepresented in the week-day after school hours in the proximity of their schools and after-school activities.
    - The cross-tabulation of time of day by day of the week that was restricted to injury crashes only showed a very high resemblance to the same analysis for impaired driving (alcohol and other drugs involvement).

- Crash Causal Factors
    - The overrepresentation factors indicate that certain risk-taking behaviors are often associated with crashes in which restraints are not used, including DUI, over the speed limit, aggressive operation, running off the road, and fatigue/sleep.
    - Crashes attributed to drivers who used no restraints are greatly overrepresented in vehicles with model years 1960-2003, which could be attributed to the lack of standard safety restraints in some of these older model vehicles, or perhaps the removal of these safety devices over time.
    - The speed at impact for crashes for this type of crash is overrepresented in all of the categories above 40 MPH, indicating that these crashes consistently occur at higher speeds than crashes in which restraints were used by the causal driver.
- Severity Factors
    - Fatal, incapacitating, and non-incapacitating injuries are all overrepresented in crashes where drivers were not restrained; this analysis quantified the benefits of the restraint use.
    - Fatal injuries in crashes where no restraints are used are highly overrepresented on interstate, federal and state roadways. "Possible Injuries" were highly overrepresented on municipal highways.
    - Analysis of injuries shows that the proportion of injuries (including fatalities) in unrestrained driver crashes is overrepresented from 1 to 7 injuries per crash. Crashes without restraints are clearly causing much more severe injuries and a greater number of injuries and fatalities per crash.
    - The proportion of fatalities in general as well as the proportion of multiple fatality crashes is dramatically overrepresented in crashes where the causal driver is unrestrained.

- As expected, ejection of the unrestrained driver is overrepresented, indicating one major cause for many fatalities in which safety equipment is not properly utilized.
- All types of injuries, including fatalities, are consistently overrepresented in crashes where no restraints were used.

- Driver Demographics
  - Analysis of individual driver ages indicates that crashes involving no restraints are overrepresented in drivers in and immediately above the teen driver classification (age range 19-38).
  - Male drivers account for a majority of crashes in which restraints are not used, and they are overrepresented by a factor of 1.344.

- Ejection and Back Seat Analysis
  - The non-restrained person is about 50 times more likely to be ejected than those who are properly restrained.
  - If all back-seat occupants were properly restrained it would result in a saving of 80 lives per year.

8.3.2.4 Focus Area and Age Groups

As indicated above, rural areas and the 16-25 age group were found to have some of the highest over-representations. Some location analyses were performed specific to these two attributes, but it was found that subsets of this detail could not produce well-defined location in and of themselves. Thus, it was determined to provide supplementary training to the field officers to deal with these factors. In particular, the following provided guidance to the training of the officers who would be involved in the selective enforcement efforts:

- Rural Areas
  - Within the segments specified, pay special attention to the rural areas; for example, along a 10-mile section there could be both rural and urban areas, in which case the portion of the segment that was in the open country should be worked as opposed to in the urban area.
  - Concentrate especially in the rural areas where there might be a relatively large traffic flow due to the proximity of an urban area.
  - If county roads were not specified as high restraint deficient areas, include some county roads as part of the normal enforcement routing cycle.
  - When county roads are specified, give them a higher priority in enforcement routing.
  - Give special attention to older vehicles.
  - Restraint deficiency enforcement for the most critical times are late Friday night, early Saturday morning (until 6 AM), late Saturday night (after 6 PM), and early Sunday morning (until 4 AM).
  - Morning and afternoon rush hours would also be targeted times in rural areas, although the per-vehicle incidence will only be about half of that which occurs during the night-time hours.

- Age Group 16-20
  - Give special attention to male drivers.
  - Give special attention to drivers that may be engaged in marginal risk-taking behavior.

    - Concentrate on school-proximal areas in the 7 AM to 8 AM time frame, and in the afternoon from 2 PM to 6 PM.
    - Concentrate on high-school type night spots on Friday-Saturday night and Saturday-Sunday night in the 9 PM until 2 AM time frame.

- Age Group 21-25
    - Give special attention to male drivers.
    - Concentrate on areas where there is college or university "night-life."
    - Restraint deficiency enforcement for the most critical times are late Friday night, early Saturday morning (until 6 AM), late Saturday night (after 6 PM), and early Sunday morning (until 4 AM).
    - Concentrate on the afternoon protracted rush hour (3 PM to 7 PM) as opposed to the morning rush hours.

8.4 Program Management

The responsibility for the overall management of the occupant protection program has been assigned to the Alabama Office of Highway Safety (AOHS) as part of their overall coordination and administration efforts. In this regard, they provide centralized leadership, planning, implementation, and coordination on all State occupant restraint programs. Their decisions are evidence-based relying heavily upon crash and citation records to realign the efforts as conditions change from year to year. For example, there has been a recent trend toward urban driving, which seems to be a remnant that has persisted from the last recession. Data and program evaluation efforts are used by AOHS to monitor existing programs, and modify them based on their progress and success. New programs are developed as they are shown to have a high potential for success.

The E-BE projects will be administered by AOHS with the support of the CTSP/LEL Coordinators and the other partner state and local agencies that will be involved, which will include the following:

- Develop a vision and mission statement for the overall E-BE program.
- Develop goals consistent with the vision/mission statement from which measurable objectives are established,
- With guidance from NHTSA, develop strategies that will accomplish the established goals, among them to include:
    - Training and technical assistance to other State and local agencies as well as any private advocacy groups that are involved with occupant protection;
    - Establish a broad base of support for the various programs;
    - Establish and convene various committees or other work teams that will reflect the demographic composition of those most in need of training and assistance;
    - Fully involve the CTSP/LEL Coordinators in continuing to integrate occupant protection programs into their ongoing community/corridor traffic safety and other injury prevention programs.
- Coordinate all complementary PI&E programs that support the E-BE projects;
- Monitor all projects to assure that they stay consistent with the overall ideals of the program; and
- Evaluate the effectiveness of the program against their defined objectives.

This section will continue by presenting the Vision and Mission Statements along with the overall goals and strategies for implementing improved occupant restraint programs.

8.4.1 Vision and Mission Statements

AOHS has established the following overall vision statement for all of its programs:

> **To create the safest possible surface transportation system by means of a cooperative effort that involves all organizations and individuals within the state who have traffic safety interests.**

This vision is measurable in terms of crash, injury and fatality rates (per million vehicle mile). More specifically, the vision statement for the occupant restraint programs is as follows:

> **To create a culture change in the percentage of the motoring public who are not using occupant restraints that will motivate them to see the lost benefits and take those actions to assure that they and their fellow passengers are properly restrained.**

With regard to occupant protection, AOHS has developed the following Mission Statement:

> **Coordinate and build cooperation among all involved within the traffic safety community to effectively conduct a broad range of the most effective programs possible to significantly and permanently increase restraint use within the State.**

A continuous improving cultural change is necessary if these programs are to succeed. The following *ideals* have been established to motivate this culture change:

- *Saving Lives.* Preserve the lives of all users of the Alabama surface transportation system by minimizing the frequency and severity of all potentially fatal crashes, regardless of the countermeasure type or the organization that has primary responsibility for its implementation.
- *Reduction in Severity.* Reduce the suffering results from injuries sustained in motor vehicle crashes, and thereby reduce fatalities by all means possible, including reduced delay time from crash to police notification, police arrival, and ambulance arrival.
- *Focus on occupant restraints.* Recognize from Table 1 that a failure to use occupant restraints must be recognized as one of the most critical issues in fatality reduction. Motivate all organizations and individuals in the area of traffic safety to be committed to continuous improvement in this area. Assure that all of the strategies discussed below become part of the overall safety culture.
- *Teamwork and Diversity.* There must be dedication to cooperative efforts among a wide range of federal, state and local organizations as well as private advocate groups, some of which were defined in Section 8.2. All highway users and user groups must be adequately represented, and all sub-disciplines have been given the opportunity to provide input and information to improve the overall program.

It is clear that past efforts that have been consistent with these ideals have resulted in many saved lives. Those involved in these efforts must recognize that the severity increase in each crash involving unrestrained passengers is caused by the *choice* not to use restraints, either by the occupants themselves in the case of adults, or the caregivers in the case of children and the elderly. The improvements made over the past decade have been admirable, but there must now be a recognition that special efforts are needed for those high-risk target groups (e.g., those engaging in impaired driving, and younger drivers). The continuous cultural change, resulting in improved driver and passenger behaviors in this regard, will lead to a measurable increase in measurable restraint use as well as a measurable decrease in crash severity.

8.4.2 General Traffic Safety Goals

Consistent with the State's dedication to the ultimate goal of zero deaths, and the Toward Zero Deaths (TZD) approach, it is their long term goal to have all passengers in the state restrained, and thus to get the maximum benefit in terms of reduced crash severity that occupant restraints offer. Goals have been established for the overall occupant restraint program based measures of improvements that have been obtained in the past as well as the anticipated potential benefits from the more comprehensive proposed programs.

The overall strategic program goal for all programs in the state is as follows:

To reduce the three-year average annual number of fatalities by 2% per year over the next 25 years (i.e., using 2010 as a base year, through 2035).

Embracing the concept of Toward Zero Deaths (TZD), the Alabama Strategic Highway Safety Plan set a strategic goal of reducing fatalities by 50% over the next 25 years. Based on the 2011 fatality count of 895, this 2% (of the base year) per year reduction would average about 18 fatalities per year. While this might seem a modest number, if maintained as the average over a 25 year period it will save more than 5,600 lives over that time period. This will be a major accomplishment in continuing the downward trend that was established in the 2007-2011 time frame, which reversed the alarming increase in fatalities that preceded 2007. Also, if the 2% of the base year is viewed as a percentage of the years in which reductions have taken place, this percentage grows linearly until in the 25th year it amounts to 4% of the previous year.

Unlike the long range goal, short range goals are established each year. These goals, presented in Sections 8.4.3-8.4.5 are along the same line as the long range goals but are adjusted more frequently in order to track progress that the state has made by looking at the coming fiscal year. When considering these goals, it is important to note that the data being used for these goals is somewhat delayed. Because of the delay in receiving completed crash data for the year, 2015 FARS Data must be used to develop the plan for fiscal year 2018.

8.4.3 Occupant Protection Performance Measures and Goals

The performance measures for both child safety seat and overall restraint use have been obtained from annual surveys that were conducted by the Alabama Department of Public Health and UA-CAPS. The Seat Belt Usage Rate is obtained immediately following the "Click It or Ticket" campaign and the Child Safety Seat Usage Rate data is collected in August. The latest data for both of these rates was obtained from reports made available by UA-CAPS, as follows:

Performance Measures	2001	2002	2003	2004	2005	2006	2007	2008
Seat Belt Usage Rate	79.40%	78.80%	77.40%	80.00%	81.90%	82.90%	82.30%	86.10%
Child Safety Seat Usage Rate	77.00%	89.40%	87.00%	82.90%	91.60%	88.00%	92.30%	88.20%

Performance Measures	2009	2010	2011	2012	2013	2014	2015	2016
Seat Belt Usage Rate	90.00%	91.43%	88.00%	89.50%	97.26%	95.70%	93.29%	92.00%
Child Safety Seat Usage Rate	94.91%	93.12%	95.83%	93.00%	97.70%	97.90%	96.40%	95.50%

Performance measures are essential to determine the progressive realization of the established goals. Performance measures include one or more of the following:

1. Fatal crash frequency (e.g., the number or proportion of fatal crashes in which the fatally injured passenger (including drivers) was properly restrained;
2. Crash severity reduction (e.g., the ratio of the proportion of fatalities to severe injuries); and
3. Percentages of all crashes that are fatal (to gauge the proportion within the overall population of crashes).

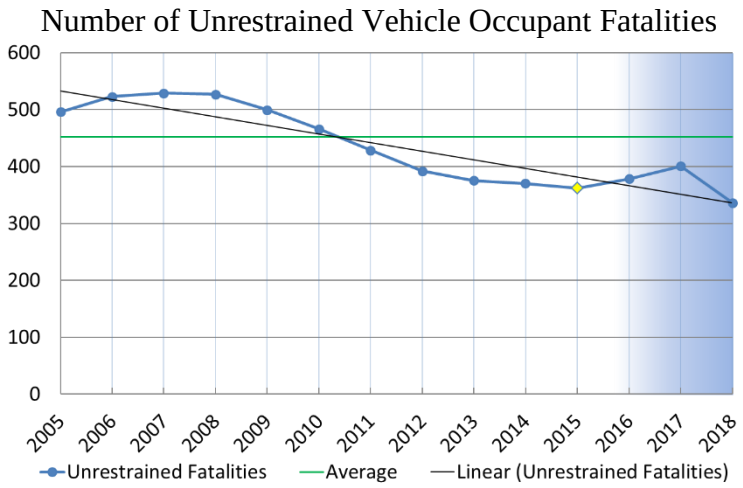
Only injury and fatal collisions will be included in the crash frequency goals. Goals will be presented in the following categories (reference to the FY 2018 HSP):

- Number of Unrestrained Passengers Killed (C-4)
- Seat belt Usage (B-1)
- Traffic Safety Activity Measures (A-3).

These are given in the following sections.

8.4.4 HSP Metric C-4: Number Unrestrained Passenger Vehicle Occupant Fatalities All Seat Positions (FARS)

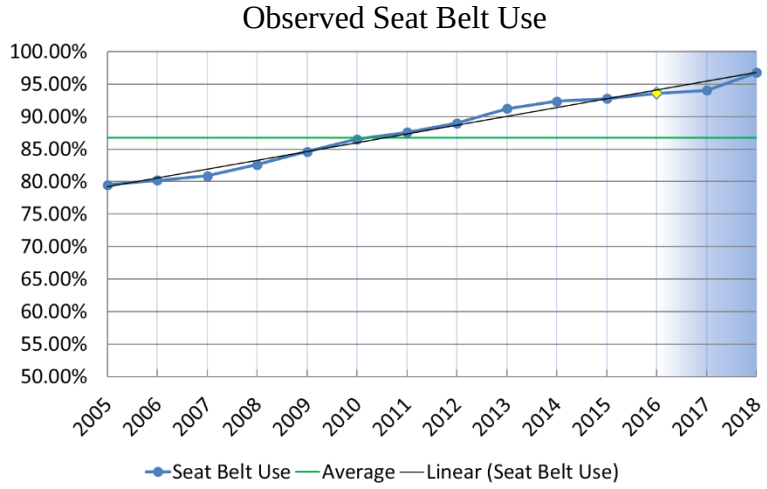
2011	2012	2013	2014	2015	Baseline	Goal
382	354	369	351	355	362	336



Reduce the unrestrained passenger vehicle occupant fatalities by 7.18 percent from the five-year baseline average of 362 (2011-2015) to 336 by 2018*.

8.4.5 HSP Metric B-1: Observed Seat Belt Usage for Passenger Vehicles Front Seat Outboard Occupants (Survey)

2012	2013	2014	2015	2016	Baseline	Goal
89.5	97.3	95.7	93.3	92.0	93.6	93.6



Maintain the observed seat belt usage at the five-year baseline average (2012 -2016) of 93.6% in 2018*.

8.4.6 Strategies for FY 2018

The following outlines the strategies to be applied during FY 2018:

- Planning and Administration – The Alabama Office of Highway Safety (AOHS) will continue to perform the overall administrative functions for the planned programs and projects.
- 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.
- 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.
- Conduct four local Hotspot Evidence-Based Enforcement Program (E-BEP) projects, one within each of the CTSP/LEL regions focusing on hotspot locations.
- Perform a statewide E-BE project will be conducted in conjunction with the Alabama Law Enforcement Agency (ALEA), also focusing on hotspot locations.
- 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 2018.
- Participate in national "Click It or Ticket" campaign on the statewide level.

By focusing on the hotspot locations, every effort will be taken to reduce restraint-deficient crashes, and in so doing, reduce the fatality rate for the state.

8.4.7 Child Restraint Laws

Child safety belt laws were specifically targeted in the 2006 Child Restraint Law, which provided amendments to the section of the Code of Alabama 1975. This legislation is listed below:

Child Restraint Regulations
Set Forth Guidelines for Infant-only, Forward-facing, and Booster Seats

Act 2006-623
Effective July 1, 2006
ENROLLED, An Act,
To amend Section 32-5-222 of the Code of Alabama 1975, relating to child passenger restraints, to further provide for the use of child passenger restraints; to increase the fine; to provide for a point system; to provide for dismissal of charges upon proof of acquisition of an appropriate child passenger restraint; to provide for $15 to be deposited in the State Treasury to be disbursed by the State Comptroller to the Alabama Head Injury Foundation to administer; to subject the foundation to examination by the Department of Examiners of Public Accounts; 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.
BE IT ENACTED BY THE LEGISLATURE OF ALABAMA:

Section 1. Section 32-5-222 of the Code of Alabama 1975, is amended to read as follows:
§32-5-222.
(a) Every person transporting a child in a motor vehicle operated on the roadways, streets, or highways of this state, shall provide for the protection of the child by properly using an aftermarket or integrated

child passenger restraint system meeting applicable federal motor vehicle safety standards and the requirements of subsection (b). This section shall not be interpreted to release in part or in whole the responsibility of an automobile manufacturer to insure the safety of children to a level at least equivalent to existing federal safety standards for adults. In no event shall failure to wear a child passenger restraint system be considered as contributory negligence. The term "motor vehicle" as used in this section shall include a passenger car, pickup truck, van (seating capacity of 10 or less), minivan, or sports utility vehicle.
(b) The size appropriate restraint system required for a child in subsection (a) shall include all of the following:
(1) Infant only seats and convertible seats used in the rear facing position for infants until at least one year of age or 20 pounds.
(2) Convertible seats in the forward position or forward facing seats until the child is at least five years of age or 40 pounds.
(3) Booster seats until the child is six years of age.
(4) Seat belts until 15 years of age.
However this bill must meet the requirements of Code Section 32-5b-4.

8.4.8 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.

In summary, proposed legislation included the following items:

- People sitting in all seat positions wear seat belts.
- Minimum fine of $25.00.

- 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.
- 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.
- 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.
- 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.

The list of bills that is being promoted and supported are given at:

http://www.safehomealabama.gov/GovernmentAgencies/StateAgencies/ALLegislature.aspx

8.5 Evidence-Based Enforcement (E-BE) Program for Restraints

8.5.1 General Program Overview

To assure that its child restraint and occupant protection laws are vigorously enforced the State will engage in an evidence-based enforcement (E-BE) effort. The following lists the planned enforcement (and enforcement-related) efforts that will be made throughout the 2018 fiscal year:

- CTSP/LEL Regional Coordinators. Each of the four CTSP/LEL Coordinators has been charged with giving the highest priority to the occupant restraint hotspot locations outlined for their region. There is a CTSP/LEL office located in each region, and each of these offices is responsible for the problem areas within their region. They will supply reports and other information back to AOHS regarding the efforts taking place within their region.
- The University of Alabama Center for Advanced Public Safety (UA-CAPS), which has developed and currently maintains the CARE data analysis software program, will provide continuous updates of crash and other traffic safety (e.g., citation) data throughout the year, including updates of the analyses given in the problem identification procedure, preparing reports and providing answers for information requests related to the occupant safety program.
- Conduct Evidence-Based Enforcement (E-BE) projects directed at occupant protection. This will consist of: (1) four local E-BEP projects, and (2) one statewide E-BE project in conjunction with the Alabama Law Enforcement Agency (ALEA), all focusing specifically on occupant restraint enforcement. The specific locations for the E-BE efforts will be determined from the CARE hotspot analyses generally described above and detailed in Section 8.8. General Law Enforcement activity that includes restraint enforcement will be sustained for twelve (12) months, and the special restraint-focused E-BE projects will not diminish the normal efforts being made in this regard as described in the next section.

8.5.2 General Evidence-Based Enforcement (E-BE) Program Location Specifications

The general Evidence-Based Enforcement (E-BE) plan targets countermeasures in the areas of DUI (alcohol and other drugs), speed, and distracted driving will also include occupant restraint enforcement, enabling law enforcement at the local levels to enforce non-use of occupant protection and child restraints laws simultaneously with their other E-BE efforts. In addition to the special Memorial Day and the Labor Day campaigns, the State will conduct sustained enforcement throughout the year. Projects that increase citation rates have been shown to have positive effects on lowering the incidence of the offense in the location where the citations are given. Education efforts will continue to be offered to augment the high visibility enforcement of the primary-enforcement occupant restraint laws.

These projects involve regional coordinators, the Alabama Law Enforcement Agency (ALEA), and local law enforcement generally funded by overtime pay for officers to conduct a statewide evidence-based enforcement program. The strategy of this effort is to reduce crashes at these hotspots in the state, and to reduce the frequency of restraint-deficient crashes within each. Current policy is to fund overtime as it gives the greatest flexibility in manpower deployment, and is thus more effective and efficient, since overtime allows more flexibility in scheduling. Law enforcement agencies will use saturation patrols, line patrols, checkpoints, and regular patrol in order for the E-BE projects to be effective. The specific locations of enforcement activities will be deployed to those specific segments defined by the problem identification defined in the HSP. To the extent that resources will permit, the E-BE program will be supported by media efforts similar to those described below for the Click It or Ticket Program.

8.5.3 Click It or Ticket (CIOT)

8.5.3.1 Overall CIOT Summary

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:
    - 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.
    - The program will consist of waves of surveys, enforcement and media blitzes, carefully scheduled to maximize public understanding of restraint use.
    - 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:
    - 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;
    - 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;
    - Collecting results from all the various involved parties for their activities;
    - Performing analyses of data generated through telephone based polls, media campaign data and enforcement data;
    - Compiling the project report for "Click It or Ticket" 2018;
    - Contracting out the performance of the child restraint observational survey;
    - Analyzing survey data and computing child seat belt usage rate for State;
    - Determine new observational sites for the state and get NHTSA approval for them

The listing of general activities to be conducted during the STEP and the proposed schedule are shown below:

Weeks	Dates	Activities
1-2	April 23-May 6	Statewide Observational Survey (Baseline)*
3-8	May 7-June 14	Earned Media for CIOT
4-5	May 14-28	Paid media for CIOT
5-6	May 21-June 3	Enforcement for CIOT
7-8	June 4-14	Statewide Observational and Telephone Surveys*

* Activities that involve data collection and analysis

The problem identification for the CIOT E-BE program is documented in Section 8.3.2. 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.

In addition, other enforcement and education campaigns throughout the year encourage increased seat belt usage. These campaigns have been successful in that survey data after the 2016 campaign revealed that 95% of respondents reported that they used their seat belts "all the time" or "most of the time" at the end of the media campaign.

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. Previous efforts resulted in the Auburn Media Production Group placing 3,532 paid media

commercials for the Click It or Ticket campaign in 2016. There were 8,813,665 digital impressions and 3,443,896 out of home placements in the same time frame.

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 2018 will be the sixth 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. Alabama's deadline for this is approaching. We must submit new survey site reselections to NHTSA by December 15, 2017 with final compliance by March 1, 2018. UA-CAPS has already begun work on the re-selection process with these deadlines in mind. 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 the past five years, the surveys were conducted at a total of 343 assigned sites in 40 Alabama counties: Jefferson, Mobile, Madison, Tuscaloosa, Baldwin, Montgomery, Marshall, Lee, Walker, Calhoun, Shelby, Elmore, Cullman, Talladega, Limestone, St. Clair, Russell, Etowah, Morgan, Jackson, Houston, Lauderdale, Lawrence, Escambia, Blount, Chilton, Dallas, Pike, Autauga, Dekalb, Dale, Coffee, Monroe, Chambers, Tallapoosa, Franklin, Winston, Colbert, Conecuh and Covington. For 2018, it is expected that we will have a similar count of counties and sites but we will not know that until the re-selection process is completed and approved.

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:
    - Implement the media portion of the campaign;
    - Contract with another professional group to produce and/or place ads if that is found to be most expedient;
    - Determine where and when the ads are run; this will include the avenues of TV, cable, radio, internet and electronic billboards;
    - Possibly produce educational brochures for the project;
    - Submit reports to ADECA-LETS; and
    - Submit reports to UA-CAPS for inclusion in the overall final report for the project.
- ADECA/LETS will:
    - Provide funding for the project;
    - Serve as the host agency for the effort, providing ongoing oversight coordination, and guidance as needed;
    - Coordinate the enforcement campaign and provide summary reports to UA-CAPS for inclusion in final report; and

    - 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:
    - Design and prepare the telephone questionnaire instrument (with guidance from LETS and UA-CAPS);
    - Conduct a post survey;
    - Encode and analyze the data, and
    - 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 in Section 8.3.2 above, along with Section 8.8 below 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.

The very same procedures that were used to find hotspots for all restraint deficient crashes were applied to find those crashes in which child restraints were deficient. The only difference was that the criterion for the subsets used in this case was only those crashes in which there were child restraint deficiencies. Section 8.8 is organized by region to facilitate its use by the CTSP/LEL coordinators in administering the various programs. Officers will be required to cover the specific locations listed.

8.5.3.4 Participating Agencies

Click It or Ticket-Participating Agencies			
ALEA State Troopers - 16 Posts	DALEVILLE POLICE DEPT	HEFLIN POLICE DEPT	NORTHPORT POLICE DEPT
ABBEVILLE POLICE DEPT	DECATUR POLICE DEPT	HENRY CO SHERIFFS DEPT	OPP POLICE DEPT
ALEXANDER CITY POLICE DEPT 911	DEMOPOLIS PD (MARENGO CO E911)	HILLSBORO POLICE DEPT	OZARK POLICE DEPT
ANDALUSIA POLICE DEPT	DOTHAN POLICE DEPT	HOUSTON CO SHERIFFS DEPT	PRATTVILLE POLICE DEPT E911
ARDMORE POLICE DEPT	ELBA POLICE DEPT	HUEYTOWN POLICE DEPT	RAINBOW CITY POLICE DEPT
ASHFORD POLICE DEPT	ELBERTA POLICE DEPT	HUNTSVILLE POLICE DEPT	REPTON POLICE DEPT
ASHLAND POLICE DEPT	ENTERPRISE POLICE DEPT	JACKSON CO SHERIFFS DEPT	ROGERSVILLE POLICE DEPT
ASHVILLE POLICE DEPT	ESCAMBIA CO SHERIFFS DEPT	JACKSON POLICE DEPT	RUSSELL CO SHERIFFS DEPT
ATHENS POLICE DEPT	EXCEL POLICE DEPT	JEMISON POLICE DEPT	RUSSELLVILLE POLICE DEPT
AUTAUGA CO SHERIFFS OFFICE	FALKVILLE POLICE DEPT	KILLEN POLICE DEPT	SARALAND POLICE DEPT
BALDWIN CO SHERIFFS DEPT	FLOMATON POLICE DEPT	LAKE VIEW POLICE DEPT	SECTION POLICE DEPT
BAYOU LA BATRE POLICE DEPT	FLORALA POLICE DEPT	LINDEN POLICE DEPT	SELMA POLICE DEPT
BESSEMER POLICE DEPT	FLORENCE POLICE DEPT	LITTLEVILLE POLICE DEPT	SLOCOMB POLICE DEPT
BIRMINGHAM POLICE DEPT	FOLEY POLICE DEPT	LUVERNE POLICE DEPT	SOUTHSIDE POLICE DEPT
CALERA POLICE DEPT	GENEVA POLICE DEPT	MACON CO SHERIFFS DEPT	SPRINGVILLE POLICE DEPT
CAMDEN POLICE DEPT	GEORGIANA POLICE DEPT	MADISON CO SHERIFFS DEPT	ST CLAIR COUNTY SHERIFF OFFICE
CENTREVILLE POLICE DEPT	GLENCOE POLICE DEPT	MOBILE CO SHERIFFS DEPT	ST FLORIAN POLICE DEPT
CHICKASAW POLICE DEPT	GREENE CO SHERIFFS DEPT	MOBILE PD	TARRANT POLICE DEPT
CHILTON CO SHERIFFS DEPT	GROVE HILL POLICE DEPT	MONROE CO SHERIFFS DEPT	THOMASVILLE POLICE DEPT
COFFEE CO SHERIFFS DEPT	GUIN POLICE DEPT	MONTEVALLO POLICE DEPT	TOWN CREEK POLICE DEPT
COFFEEVILLE POLICE DEPT	GURLEY POLICE DEPT	MONTGOMERY CO SHERIFFS DEPT	TRINITY POLICE DEPT
COLUMBIANA POLICE DEPT	HALEYVILLE POLICE DEPT	MONTGOMERY PD COMMUNI-CATIONS	TROY POLICE DEPT
COVINGTON CO SHERIFFS DEPT	HAMILTON POLICE DEPT	MORGAN COUNTY SHERIFF OF-FICE	TUSCALOOSA CO SHERIFFS DEPT
CRENSHAW CO SHERIFFS DEPT	HARTFORD POLICE DEPT	MOULTON POLICE DEPT	WALKER CO SHERIFFS DEPT
CULLMAN POLICE DEPT	HEADLAND POLICE DEPT	MUSCLE SHOALS POLICE DEPT	WINFIELD POLICE DEPT

8.5.4 Complementary Communication Program

PI&E will be an integral part of the total E-BE effort, since it has been well established that the effects of the enforcement efforts can be dramatically increased by effective and relatively inexpensive paid and earned media campaigns. AOHS and their partners, such as UA-CAPS and others, put forth efforts to capitalize on special events, such as nationally recognized safety and injury prevention weeks and local enforcement campaigns, by promoting these events on their social media sites including Facebook and Twitter, by which brief and very focused messages were frequently pushed out through these media. Social media has been found to be an especially effective avenue of reaching younger audiences. These events are also promoted on the www.SafeHome.Alabama.gov website, which is comprehensive of all of Alabama's traffic safety endeavors. Not only are the events publicized prior to occurring but the results are published afterwards through these means as another opportunity to spread awareness.

8.6 Occupant Protection for Children Program

The occupant protection for children part of the occupant restraint program will be administered by the State Child Passenger Safety (CPS) coordinator. A major goal of the CPS program for FY 2018 will be to increase communication and awareness on the issue of CPS in each of the four CTSP/LEL regions. The statewide CPS website is heavily utilized by parents and technicians alike. The website (www.cpsalabama.org) offers a place to go to get accurate, up-to-date CPS information for parents and technicians. More detail on this website is given in the Occupant Protection for Children Program section, Increased Communication and Awareness subsection.

A major function of the CPS program includes training for first time technicians, and recertification for trained technicians. These new technicians and seasoned technicians alike will man inspection stations which will be available to the public. Each inspection station will be staffed with at least one current nationally Certified Child Passenger Safety Technician during official posted hours. The technicians will ensure that parents learn how to properly install their child passenger restraints. Key components to this education are to educate the parent on proper harnessing of their child and proper installation of the child restraint in the vehicle.

Alabama's CPS program was in its 13th year in FY 2017. The CPS coordinator and instructors are addressing the needs of the four CTSP/LEL regions. The plan for FY 2018 is to further reach out to underserved communities, create technicians and to provide the services of additional trained CPS professionals in all communities. The following sections will detail how the program will accomplish these goals.

The State plans to continue with the Child Passenger Safety (CPS) program that began in FY 2006. In that year, a CPS coordinator was appointed, augmented with three additional instructors from the CTSP/LEL offices, and they were tasked with addressing CPS from a regional perspective. The CPS program will be continued through FY 2018 with an emphasis on teaching new technicians in communities throughout the CTSP/LEL regions. The overall goal of the CPS program remains to have more child restraint technicians available so that it will lead to an increase in child restraint usage within the State of Alabama, resulting in a reduction of fatalities and serious injuries.

8.6.1 Alabama Child Passenger Safety (CPS) Program

The Alabama CPS program for FY 2018 will be staffed by the state coordinator. The CPS coordinator handles all CTSP/LEL regional needs. The plan for FY 2018 is to train new and maintain current CPS technicians all around the state and place a special emphasis on small and high risk communities. The Alabama CPS program will not purchase car seats with grant funds. Additionally, the plan is to maintain existing technicians no matter where they live in Alabama but especially technicians in these small/under-served communities. Gaining champions in these areas takes a commitment from Police Chiefs, Fire Chiefs, hospital CEOs and other leaders in the community. These communities have little to no resources for such trainings, and therefore, gaining access has proven difficult. The economic down turn has made this program outreach even more challenging.

The goal for the CPS program is to develop trained CPS professionals in as many communities over the state as possible. The ultimate goal is to create statewide community inspection stations where parents and other caregivers can obtain proper education about safely restraining their children. The following paragraphs will detail how the program will accomplish these goals.

The statewide Child Passenger Safety (CPS) Program will conduct at least 15 Child Passenger Safety standardized certification training opportunities for up to 10 community individuals in each class. These 15 training classes will be conducted by the CPS coordinator and at least two additional instructors. The goal for the CTSP/LEL offices is to make these trainings as accessible to as many dedicated people in these communities as possible. The CPS state-wide website www.cpsalabama.org provides a calendar and registration form for prospective participants, as well as the necessary tools for technicians and inspection stations to keep up with the ever changing field of CPS.

The CPS program has developed an updated curriculum which was approved by the Safe Kids Worldwide Certification Director. The updated curriculum course ID is 6222 and the expiration date is April 1, 2018 and will be applied in FY 2018. Recertification requires that the technician acquire at least six Child Passenger Safety Continuing Education Units (CEUs). The curriculum developed by the Alabama CPS program provides all six CPS CEUs. Alabama has several options for technicians to acquire the six CEUs, but the primary one is the CPS update curriculum. The update curriculum class has been structured to offer all six CEUs in one sitting. Additionally, there are websites that have online offerings for CEUs. All CEU opportunities, either in-person or on-line, will highlight the changes in the CPS field since the technician/instructor originally took the course and make them the local "expert" for the communities they serve. A major change in the role of a CPS technician, implemented in late 2007, is to "educate" parents regarding proper restraint of child passengers. This education process will enable technicians to reach out to more parents since the parent will be able to properly restrain child passengers regardless of the type of restraint used. The technician can then focus on the remainder of the parents and children in the community.

As previously stated, the entire recertification process requires that existing technicians earn six CEUs to recertify and additionally the five specific car seat installations (witnessed and signed off by an instructor or by an instructor authorized proxy), and they must attend a two hour community car seat check event. Once the technician has completed these tasks, they enter the information in their "profile" on the certification website. During FY 2018, events are being planned to assist these technicians and enable them to attend a two hour community event and obtain signoff for all required car seat installations. No currently certified technicians should lose their certifications since there are many opportunities for those technicians to obtain CEUs. If they are unable to attend an Alabama CPS program update class, they may satisfy CEU requirements by reading CPS articles, taking on-line quizzes or participating in teleconferences with links that are all posted on www.cpsalabama.org. All CEU opportunities encompass the goals and objective of the NHTSA Standardized Child Passenger Safety Training Program.

The CPS coordinator plans to train and update child passenger technicians, law enforcement officials, fire, and emergency rescue personnel and provide them with the educational tools necessary to teach parents and caregivers the proper installation of child safety seats.

The website (www.cpsalabama.org) will continue to be upgraded. It has been enhanced to include more information for parents looking for help within their community, how to bring a CPS class to their community and how to become a technician if they so desire. The technician section of the website alerts technicians on how to obtain a recall list, how technicians can receive a standardized car seat inspection form and also updated information on the latest child restraints, vehicle to child restraint incompatibilities and other information vital to protecting Alabama's children. Materials from NHTSA and the American Academy of Pediatrics (AAP) have been

added to the website along with child growth charts and other resources that parents and technicians alike will find beneficial. The website has a calendar of events with a list of all car seat educational opportunities available around the state. The calendar also gives the dates and locations of car seat inspection events. All on-going child safety seat inspection stations and their hours of operation, location and contact information are listed as well. The website has evolved into a repository/statewide resource for all CPS information, such as printed materials, media, checkup event resources and links to all major websites that can aid parents and technicians. The website provides a means for technicians to report upcoming events or to submit a report on a completed event. Additionally, the website provides a way for technicians to report on car seat events and submit stats to the statewide coordinator.

The best method to teach parents and caregivers about safely transporting their children is to conduct child safety seat inspections and education clinics in their communities. The Alabama CPS program currently has 42 child safety seat inspection sites. Some the child safety seat inspection sites that do not want to be listed on the NHTSA website but serve the parents and children of Alabama as well. Each CTSP/LEL region has promoted CPS and will continue to promote CPS, which has the goal of increasing the child safety inspection/clinics in their regions. These efforts will hopefully enable all of the parents and caregivers in the state to receive this valuable education. During FY 2018, the NHTSA website will be updated with Alabama inspection station locations (with certified technicians) as they are added. The NHTSA website currently has an accurate record of these inspection stations and each inspection station is maintaining the standards set by the national CPS curriculum.

In FY 2012, the CPS public information program reached 62% of the State's total population. The goal for FY 2018 will be to increase this level to a larger portion of the population of parents and caregivers. The CTSP/LELs will help increase this rate by increasing child safety seat inspections and education clinics to parents and caregivers in their region. The CTSP/LELs will also use earned media to make parents and caregivers aware of the clinics and inspection stations in their regions.

The agendas for both the certification and update classes taught are available upon request. The statewide website (www.cpsalabama.org) also provides pages containing information about hosting CPS classes. The website has the American Academy of Pediatrics (AAP) recommendations for car seat use. Each NHTSA-recognized inspection station will receive a copy of the latest Lower Anchors and Tethers for Children (LATCH) manual. This valuable resource provides additional information for each inspection station. All other vital information will also be found on the website, which will be updated on a continuous basis.

More detail on increasing the number of certified child restraint technicians and adding inspection stations is given in the next two sections.

8.6.2 Increase Number of Certified Child Passenger Technicians

Alabama has approximately 370 technicians. During the past year, 13 certification classes were taught and 14 update (recertification) classes were taught. The recertification rate for Alabama for this year was 37.5%, which is lower than the national average of 52%. Of those technicians who did not re-certify, promotions, job change and relocation have been the biggest factors.

The plan for FY 2018 includes maintaining the number of certification classes, and increasing the number of update classes to 15 or more, while maintaining a high recertification rate. These training classes will be taught by the statewide CPS coordinator and two additional instructors. The goal for the CTSP/LEL offices is to make these trainings as accessible to as many people in these communities as possible. The Alabama CPS program is building a structure of having a trained CPS professional within 25 miles of every community in the state. There is also outreach to new-born assistance programs through local hospitals and other originations.

To keep the current CPS professionals up to date with their skills and help them maintain their certification, the program will schedule at least eight recertification classes in FY 2018, with the goal of increasing to 15 or more. These classes will highlight the changes in the CPS field since the technician/instructor originally took the course. The CPS Coordinator will manage the development of the update curriculum for use in Alabama, and it is already approved for CPS CEUs with SAFE Kids worldwide, which makes recertification much easier for technicians. Once they complete the class, perform five specific car seat installations (witnessed and signed off by a local instructor or instructor assigned proxy), and attend a two hour community car seat check event they have successfully completed the recertification requirements. For those technicians/instructors who follow these guidelines, the grant funds cover the recertification fee.

Table 4 below shows the location of the anticipated three-day classes for FY 2018 as well as an estimation of the number of attendees.

Table 4. Class Location and Attendee Estimate

Class Location	Estimated Number of Students
Birmingham	12
Florence	8
Mobile	12
Westover	7
Grove Hill	5
Cullman	7
Dothan	10
Huntsville	12
Opelika	8
Montgomery	8
Selma	5
Greenville	5
Tuscaloosa	7

Each CTSP/LEL office will be made aware of all the training opportunities available for the year. Generally these classes are on a first-come, first-serve basis. Not only are the classes advertised through the CTSP/LEL offices but each CTSP/LEL office is responsible for making sure all participants sign up using the website, www.cpsalabama.org. Many classes are being projected for all over the state and many of the smaller communities are now willing to participate. CPS is a community service driven by a great level of interest and commitment from the individual technicians at each fitting station. The recruitment of individuals at checkup events usually takes place as a grassroots, word-of-mouth recruitment by parents and individuals who go in for fittings and see the benefit and use in becoming certified themselves or encouraging community members to attend trainings.

Each CTSP/LEL Coordinator will be encouraged to hold both a CPS certification class and a CPS update class in their region.

8.6.3 Additional Inspection Stations

In FY 2018, the CTSP/LEL regional offices will increase the number of inspection stations from their current 42. The goal has been to add Inspection Stations to the NHTSA website but due to issues within some organizations this is not possible so these community resources are being offered by word-of-mouth. Meeting the goal of having an inspection station within 25 miles of parents anywhere in the state is slowly being realized using these unadvertised Inspection Stations. This ambitious goal is a challenge to meet in the rural areas but great in-roads have been made in the past few years. With concentrated assistance from the CTSP/LEL regional offices, this goal can be met.

All these inspections stations will be staffed with nationally certified CPS technicians during posted working hours.

Display 3 presents the location of Alabama's CPS inspection stations. The black circles represent a 25 mile radius around the each inspection site. Some of the circles contain more than one inspection station.

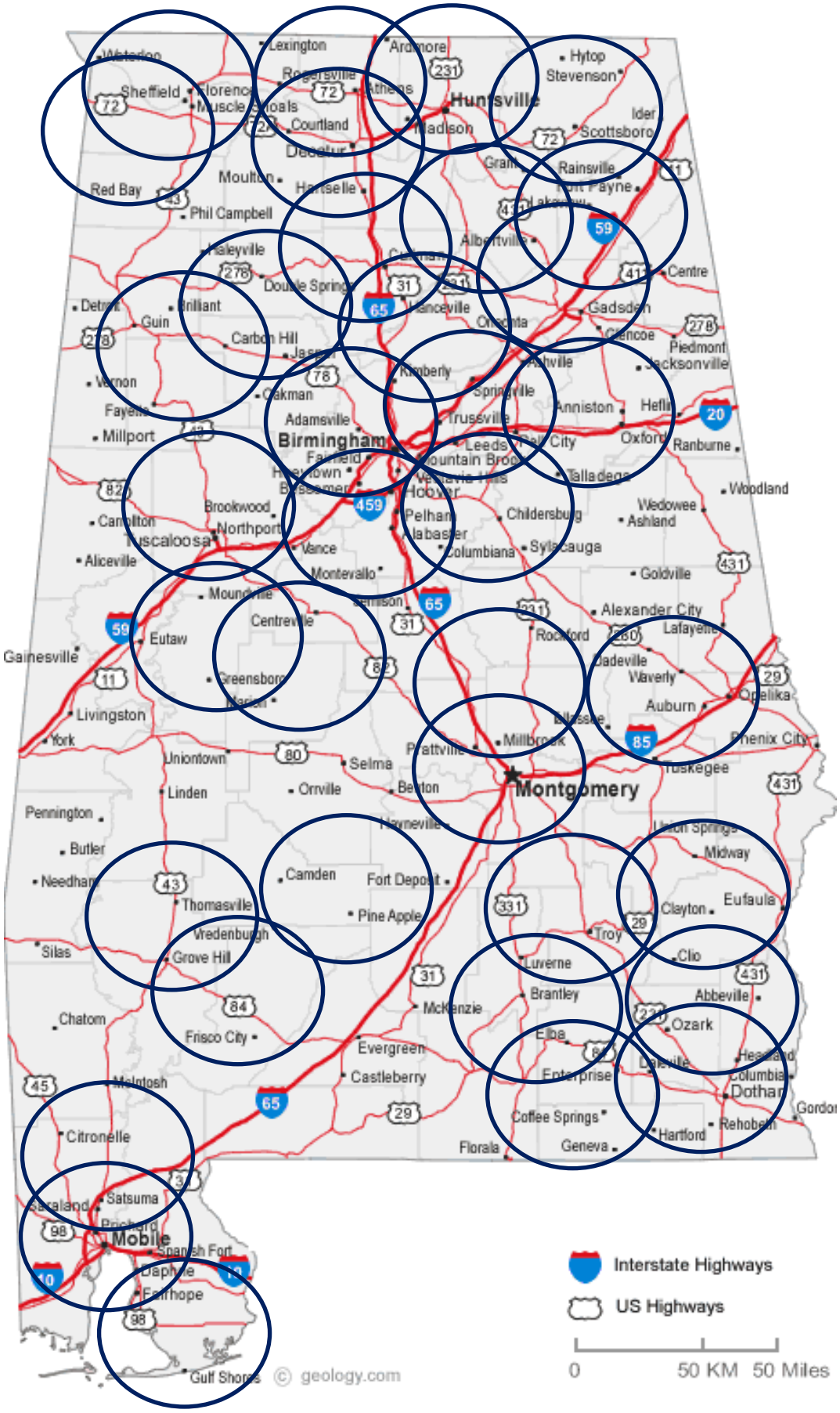
Display 3 shows 36 areas covered by fitting stations and the list of fitting stations shows 42. The multiple fitting stations in one area are as follows:

- Enterprise Police & Fire Departments
- Ft. Rucker Fire & Police Department
- Huntsville Hospital, Huntsville Police Department & Huntsville Pediatrics
- Northport Fire & Police
- Troy Fire & Police Department

Table 5 illustrates the proportion of Alabama's population that is covered by inspection stations. The table demonstrates that 75.24% of the population of Alabama is covered.

Table 6 illustrates 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.

Display 3 Location of Alabama's CPS inspection stations



The following is the location list for Display 3:

Alabaster Fire Department
Athens Police Department
Auburn Police Department
Bessemer Police Department
Children's Hospital Birmingham
Clarke County Health Department
Daleville Health Department
Demopolis Police Department
Dothan Police Department
Enterprise Police & Fire Departments
Eufaula Fire Department
Foley Police Department
Ft. Rucker Fire & Police Department
Gadsden Fire Department
Gadsden Regional Medical Center
Geneva Police Department
Hueytown Police Department
Huntsville Hospital, Huntsville Police Department & Huntsville Pediatrics
Clark County Health Department
Madison County Sheriff's Office
Marshall Medical Center
Montgomery SAFE Kids
Northport Fire & Police
Orange Beach Fire Department
Poarch Creek Indians
Saraland Police Department
Selma Fire Department
South Alabama Medical Center
Sylacauga Fire Department
Troy Fire & Police Department
Trussville Fire Department
Tuscaloosa Police Department
Tuscaloosa SAFE Kids
Shoals Area SAFE Kids
USA Women's and Children's Hospital Mobile
North Shelby Fire Department

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

Location	Population served	% of total population
Fort Rucker	26,289	0.55%
Alabaster	43,974	0.92%
Birmingham	660,560	13.82%
Mobile	415,359	8.69%
Northport	65,482	1.37%
Enterprise	51,143	1.07%
Montgomery	237,075	4.96%
Dothan	121,405	2.54%
Trussville	86,991	1.82%
Troy	32,980	0.69%
Orange Beach	203,617	4.26%
Huntsville	424,441	8.88%
Athens	91,771	1.92%
Saraland	24,855	0.52%
Selma	41,106	0.86%
Eufaula	59,747	1.25%
Bessemer	22,465	0.47%
Daleville	49,709	1.04%
Demopolis	9,559	0.20%
Auburn	175,894	3.68%
Gadsden	94,639	1.98%
Grove Hill	32,980	0.69%
Atmore	37,760	0.79%
Tuscaloosa	40,628	0.85%
Albertville	201,705	4.22%
Sylacauga	132,399	2.77%
Florence	146,738	3.07%
Geneva	64,526	1.35%
All the sites	**3,595,795**	**75.24%**

*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
Athens Police Department		Urban		YES
Auburn Police Department		Urban		YES
Bessemer Police Department		Urban		YES
Children's Hospital Birmingham		Urban		YES
Clarke County Health Department	Rural		Low Income, Minority	YES
Daleville Health Department	Rural		Low Income	YES
Demopolis Police Department	Rural		Low Income, Minority	YES
Dothan Police Department		Urban		YES
Enterprise Police & Fire Departments	Rural		Low Income	YES
Eufaula Fire Department	Rural		Low Income	YES
Foley Police Department		Urban		YES
Ft. Rucker Fire & Police Department	Rural		Low Income	YES
Gadsden Fire Department		Urban		YES
Gadsden Regional Medical Center		Urban		YES
Geneva Police Department	Rural		Low Income	YES
Hueytown Police Department	Rural		Low Income	YES
Huntsville Hospital, Huntsville Police Department & Huntsville Pediatrics		Urban		YES
Madison County Sheriff's Office		Urban		YES
Marshall Medical Center	Rural		Low Income, Minority	YES
Montgomery SAFE Kids		Urban		YES
Northport Fire & Police		Urban		YES
Poarch Creek Indians	Rural		Low Income	YES
Saraland Police Department		Urban		YES
Selma Fire Department		Urban		YES
South Alabama Medical Center		Urban		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
Shoals Area SAFE Kids	Rural		Low Income	YES
USA Women's and Children's Hospital Mobile		Urban		YES
North Shelby Fire Department		Urban		YES

8.6.4 Increased Communication and Awareness

A major goal of the CPS program for FY 2018 will be to increase communication and awareness on the issue of CPS in each of the four CTSP/LEL regions. The statewide CPS website is heavily utilized by parents and technicians alike. The website offers a place to go to get accurate up-to-date CPS information for parents and technicians. The website (www.cpsalabama.org) is now being utilized all over the country. Since the website offers a single place for all accurate CPS information, both technicians and parents are able to use it. The website has also generated phone calls from all over the country about the law in Alabama, the proper way to travel with children through Alabama and who they can contact for help in their local community.

Additional printable items will be added to the website in FY 2018. For example, the website produces a chart of the minimum and maximum weight ranges for all car seats, and this will be updated as necessary to aid technicians when working with parents. A chart on how child restraint manufacturers view inflatable seat belts has also been added. The website has valuable information for current CPS technicians so that they may retain their certification. The website has a recertification page with links to articles, activities and tests to help technicians stay current. The calendar on the website notes Child Passenger Safety related events such as classes. The website also now offers valuable information on changes in the technology of child restraints. This website will be maintained and upgraded in FY 2018.

8.6.5 Evidence-Based Enforcement Program for Child Restraints

This is an integral part of the evidence-based enforcement efforts as indicated in the Enforcement Program described in Section 8.3.2 and Section 8.8, and the details of that effort will not be repeated here.

8.7 Data and Program Evaluation

This section is subdivided according to the follow categories:

- Observational survey of occupant protection and child restraint use
- Evidence-based enforcement analysis
- Continued problem identification and evaluation efforts

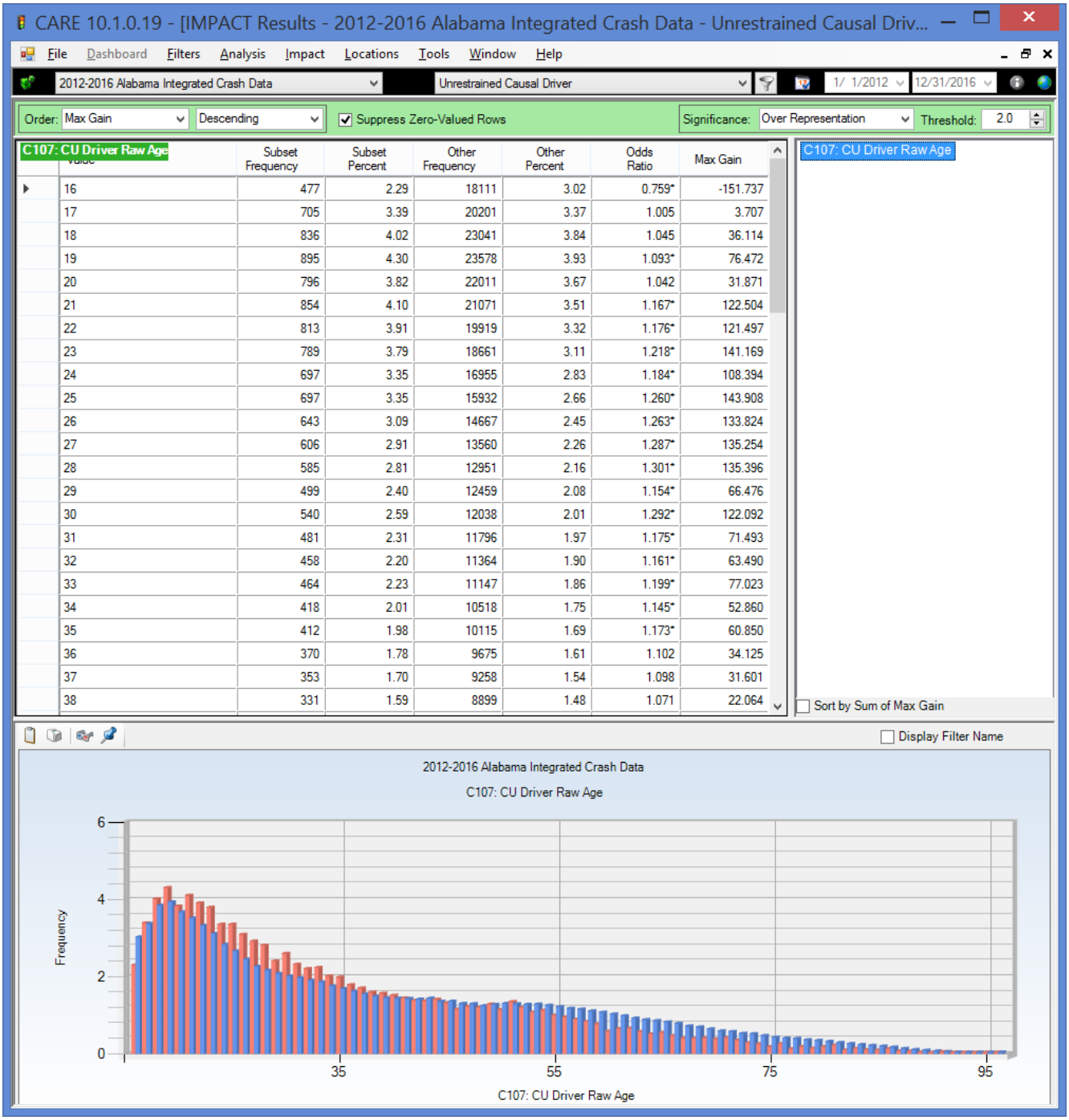
8.7.1 Observational Survey of Occupant Protection and Child Restraint Use

On April 1, 2011, the National Highway Traffic Safety Administration (NHTSA) issued new Uniform Criteria for State Observational Surveys of Seat Belt Use (NHTSA, 2011a). The final rule was published in Federal Register Vol. 76 No. 63, Rules and Regulations, pp. 18042 – 18059. The approved survey plan is Alabama's response to the requirement to submit to NHTSA a study and data collection protocol for an annual state survey to estimate passenger vehicle occupant restraint and child safety restraint use. Some of the aspects of this planned data collection effort and plan are as follows:

- The plan is fully compliant with the Uniform Criteria and will be used for the implementation of Alabama's 2018 seat belt survey.
- Pre and post Click It or Ticket campaign observational surveys for seat belt programs and a separate child restraint observational survey will be conducted by the University of Alabama Center for Advanced Public Safety (UA-CAPS). These annual surveys of vehicle belt usage and child restraint usage throughout Alabama will be conducted working together with faculty within the University of Alabama Department of Information Systems, Statistics, and Management Science in the Culverhouse College of Commerce and Business Administration and faculty and staff within the University Transportation Center of Alabama (UTCA) at the University of Alabama.
- The 2013 compliant seat belt survey design will be used for these surveys.
- The University of Alabama will coordinate the post telephone survey to evaluate the effectiveness of our paid media and compile all data related to the CIOT campaign.

8.7.2 Evidence-Based Enforcement Analysis

The State has an advanced capability to analyze and evaluate its enforcement efforts by the analysis of data obtained from its electronic crash (eCrash) and electronic citation (eCite) systems. This is illustrated in this section with the example analysis by age of causal driver. Evaluation efforts such as these will continue in order to assure that the appropriate subgroups of the population and areas of the state are covered, thus assuring that resources are used in the best possible way. The following chart illustrates the high numbers of crashes involving causal drivers in the 16-25 year age group. A more complete set of examples is given in Section 8.9.



The comparison above is between causal drivers who are not properly restrained (the red bars and the "subset" columns), and those who were properly restrained (the blue bars and the "Other columns). Analysis of individual driver ages indicates that crashes involving no restraints are overrepresented in the young adult ages (age range 21-35). Generally, teen-aged drivers, and especially the significantly under-represented 16 year olds, are more likely to use safety equipment (perhaps due to the emphasis placed on it during training). There is an exception in over-representation in the 18 and 19 year olds, only the 19 year olds are significant, but the 16-20 group collectively is not significantly over-represented.

Part of the reason for the 21-35 significant over-representation is the correlation of failure to use proper restraints with DUI (both alcohol and other drugs), so this is a very critical age group as can be seen from the dominance of the red bars for this age group in the chart above. It is quite clear that the 21-35 year old age group should be targeted (if at all possible) for seatbelt enforcement.

An analysis of unrestrained fatal crashes that compares 21-35 year old drivers against their older counterparts indicated that the average number of fatalities was 43.60 (per year of age) for ages 21-35 over the five year period of the data (2012-2016). This was compared to the older ages (in this case 36-70 so as not to bias the results with the drop off in population after age 70). The average fatality per age year for the 36-70 year old group was **21.75**, which was only about half the rate of the 21-35 year old group. This difference is obviously significant at the highest level. The difference in the number of fatalities between these two groups on a per year basis was 4.37 fatality crashes per year for each individual age. If the restraint use by this target group of 21-35 year old males could be increased to that of the general population, their fatality number would at a minimum be cut in half. This is the reason for targeting this age group.

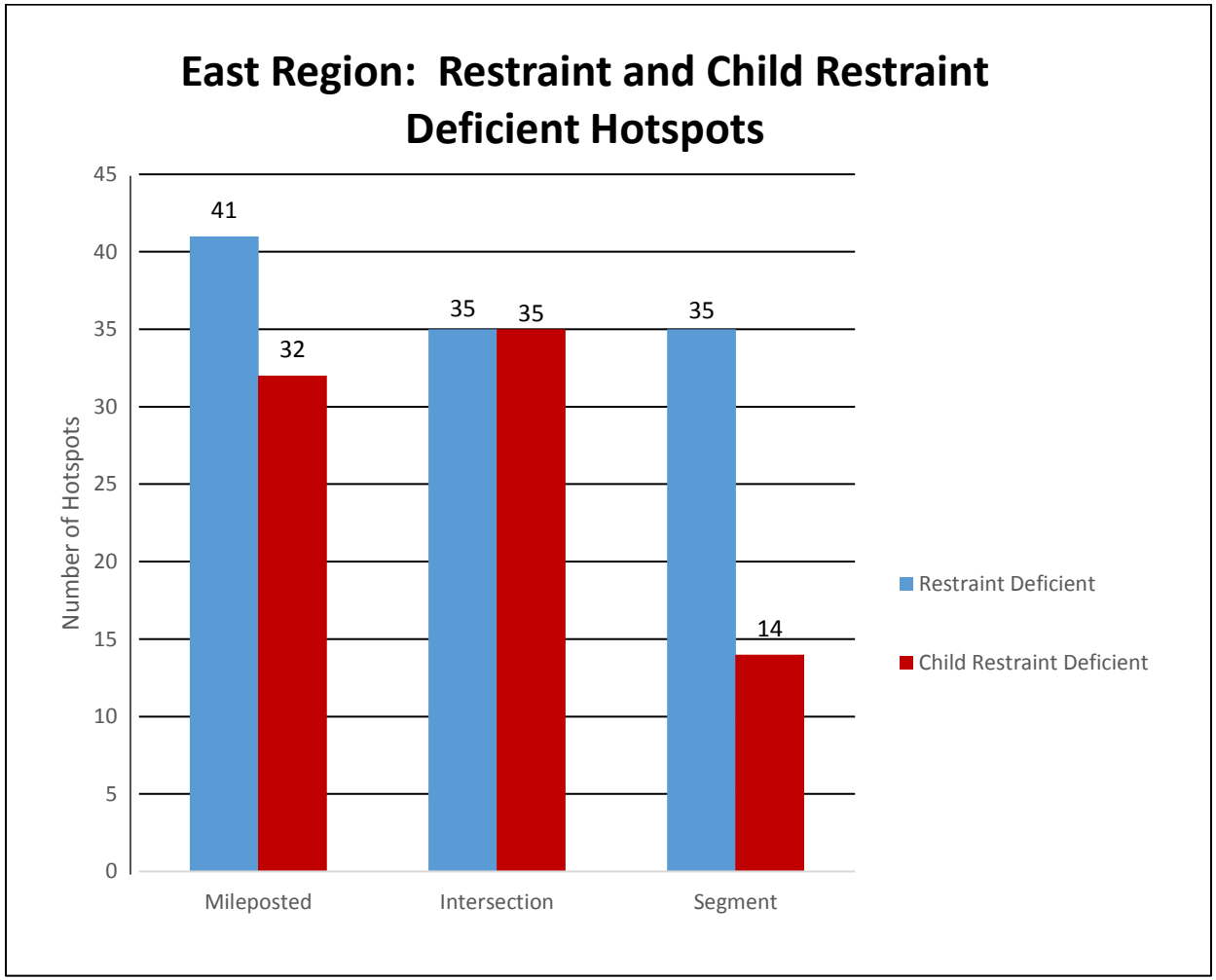
8.7.3 Continued Problem Identification and Evaluation Efforts

The efforts exemplified in the Problem Identification section above will be repeated and updated as needed to assure the most effective distribution of resources that can be obtained from evidence-based decisions. In addition, the following evaluation studies will be performed to determine program success and to improve the program in future years:

- GIS based locations of restraint-deficient crashes combined with the locations of citations given for these deficiencies; this will be performed for both restraints in general and for child restraints.
- Comparisons of the number and severity of the hotspots found over time.
- Comparisons of the number of citations by citation type issued over time.
- Comparison of the above by rate among the various regions.
- Mapping of best routes for officers to take to cover the maximum number of hotspots in one shift.

Examples of the detailed analyses that will continue to be performed are given in Section 8.9.

8.8 – Location Hotspot Restraint Problem Identification



Top 41 Mileposted Locations (10 Miles in Length) in the East Region with 20 or More Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Talladega	Rural Talladega	S-21	215	225	25	4	18	27.6	0.18	137.7	7545	ALEA - Jacksonville Post
2	Etowah	Rural Etowah	I-59	173.6	183.6	32	2	23	22.5	0.08	380.7	20860	ALEA - Gadsden Post
3	Talladega	Rural St. Clair	I-20	162.1	172.1	21	1	16	21.9	0.03	712.64	39049	ALEA - Jacksonville Post
4	Jefferson	Trussville	I-59	133	143	26	3	14	19.23	0.03	866.13	47459	Trussville PD
5	Blount	Rural Blount	I-65	280.2	290.2	22	4	9	19.09	0.03	801.67	43927	ALEA - Decatur Post
6	Talladega	Rural Talladega	S-38	34	44	20	2	11	19	0.06	355.77	19494	ALEA - Jacksonville Post
7	Etowah	Gadsden	S-1	257	267	33	4	21	18.79	0.07	458.17	25105	Gadsden PD
8	Elmore	Wetumpka	S-9	112.9	122.9	22	3	14	18.64	0.04	575.71	31546	Wetumpka PD
9	Jefferson	Bessemer	I-459	0.1	10.1	23	4	11	18.26	0.02	949.88	52048	Bessemer PD
10	Elmore	Prattville	S-14	149.2	159.2	21	2	12	18.1	0.07	313.61	17184	Prattville PD
11	Etowah	Rural Etowah	S-1	267.5	277.5	26	0	18	18.08	0.09	276.07	15127	ALEA - Gadsden Post
12	Shelby	Rural Shelby	I-65	228	238	24	3	13	17.5	0.03	879.45	48189	ALEA - Birmingham Post
13	St Clair	Rural St. Clair	I-20	140.6	150.6	27	1	18	17.04	0.03	1031.38	56514	ALEA - Birmingham Post
14	Jefferson	Bessemer	I-59	102.1	112.1	25	2	17	16.8	0.03	914.03	50084	Bessemer PD
15	Elmore	Rural Elmore	I-65	176.1	186.1	21	3	9	16.67	0.02	849.57	46552	ALEA - Montgomery Post
16	Jefferson	Hoover	I-459	10.5	20.5	34	4	15	16.47	0.02	1612.72	88368	Hoover PD
17	Talladega	Rural Talladega	S-21	240.8	250.8	21	1	11	16.19	0.13	162.04	8879	ALEA - Jacksonville Post
18	St Clair	Rural St. Clair	I-20	150.9	160.9	29	1	17	15.86	0.03	866.86	47499	ALEA - Birmingham Post
19	Jefferson	Hoover	I-65	248	258	38	5	16	15.79	0.02	2145.87	117582	Hoover PD
20	Chilton	Rural Chilton	I-65	207	217	22	3	9	15.45	0.03	685.49	37561	ALEA - Montgomery Post
21	Chilton	Rural Chilton	I-65	217	227	28	3	13	15.36	0.04	709.91	38899	ALEA - Montgomery Post
22	Calhoun	Anniston	S-21	257.2	267.2	27	0	17	15.19	0.06	432.93	23722	ALEA - Jacksonville Post
23	Jefferson	Rural Jefferson	I-459	21	31	33	1	18	15.15	0.02	1351.85	74074	ALEA - Birmingham Post

Top 41 Mileposted Locations in the East Region – (Continued)

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
24	Jefferson	Rural Jefferson	I-59	112.7	122.7	46	1	27	14.57	0.04	1294.16	70913	ALEA - Birmingham Post
25	Jefferson	Rural Jefferson	I-20	130.3	140.3	32	1	17	14.06	0.03	1062.5	58219	ALEA - Birmingham Post
26	Lee	Opelika	I-85	52.1	62.1	21	1	12	13.81	0.03	704.23	38588	Opelika PD
27	Jefferson	Vestavia Hills	S-3	266	276	20	0	13	13.5	0.02	804.79	44098	Vestavia Hills PD
28	Etowah	Glencoe	S-1	247	257	23	1	11	13.48	0.08	291.71	15984	Glencoe PD
29	Jefferson	Birmingham	S-3	276	286	22	1	13	13.18	0.08	291.23	15958	Birmingham PD
30	Jefferson	Birmingham	I-59	122.8	132.8	79	2	42	12.66	0.03	2274.11	124609	Birmingham PD
31	Jefferson	Birmingham	I-65	258	268	43	3	19	12.56	0.02	1767.86	96869	Birmingham PD
32	Jefferson	Bessemer	S-150	0.2	10.2	25	2	10	11.6	0.09	292.29	16016	Bessemer PD
33	Jefferson	Birmingham	S-7	133.5	143.5	20	0	12	11.5	0.07	299.41	16406	Birmingham PD
34	Jefferson	Bessemer	S-5	120	130	27	1	14	11.48	0.08	333.94	18298	Bessemer PD
35	Shelby	Pelham	I-65	238	248	36	1	19	11.11	0.02	1511.59	82827	Pelham PD
36	Tallapoosa	Alexander City	S-38	61.1	71.1	23	0	12	10.43	0.08	274.75	15055	Alexander City PD
37	Shelby	Birmingham	S-38	0.8	10.8	42	0	20	10	0.04	1186.83	65032	Mountain Brook PD
38	Shelby	Rural Shelby	S-38	10.8	20.8	30	0	15	9.67	0.05	547.1	29978	ALEA - Birmingham Post
39	Etowah	Attalla	S-77	102	112	20	0	11	9.5	0.07	297.97	16327	Attalla PD
40	Jefferson	Hoover	S-3	256	266	24	0	10	8.75	0.04	650.58	35648	Hoover PD
41	Jefferson	Birmingham	S-5	130	140	26	0	11	6.54	0.04	578.71	31710	Birmingham PD

Top 35 Intersections in the East Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
1	Jefferson	Hoover	6	1	5	30	15192	I-65	INTERSTATE 459 at I-65 INTERCHANGE	Hoover PD
2	Calhoun	Piedmont	4	0	3	17.5	72	S-74	AL-74 at AL-9	Piedmont PD
3	Talladega	Talladega	4	0	3	17.5	1197	S-275	AL-275 at AL-77	Talladega PD
4	Calhoun	Oxford	4	0	3	17.5	1117	S-21	AL-21 S at AL-21	Oxford PD
5	Calhoun	Oxford	6	0	4	16.67	445	S-21	AL-21 at AL-21 S	Oxford PD
6	Shelby	Alabaster	6	0	6	16.67	175	S-3	INTERSTATE 65 at US-31 SR-3 INTERCHANGE	Alabaster PD
7	Lee	Auburn	4	0	4	15	7971	S-15	AL-15 at CR-10	Auburn PD
8	Talladega	Rural Talladega	4	0	2	15	7819	S-21	NO DESCRIPTION AVAILABLE	ALEA - Jacksonville Post
9	Jefferson	Rural Jefferson	4	0	3	15	15125	I-459	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
10	Jefferson	Birmingham	7	0	5	14.29	2136	I-59	261A at I-65	Birmingham PD
11	Jefferson	Birmingham	5	0	3	14	2873	I-59	INTERSTATE 59 at TALLAPOOSA ST SR79 INTCHG	Birmingham PD
12	Jefferson	Hoover	5	0	3	14	15139	S-150	INTERSTATE 459 at SR-150 INTERCHANGE	Hoover PD
13	Calhoun	Anniston	6	0	3	13.33	857	S-1	AL-1 at AL-21	Anniston PD
14	Jefferson	Birmingham	4	0	2	12.5	1771	I-59	123 at I-20	Birmingham PD
15	Calhoun	Oxford	4	0	4	12.5	189	S-21	AL-1 at AL-21	Oxford PD
16	Shelby	Pelham	6	0	3	10	8259	I-65	NO DESCRIPTION AVAILABLE	Pelham PD
17	Calhoun	Oxford	4	0	2	10	8967	S-202	AL-4 at CR-109	Oxford PD
18	Jefferson	Birmingham	4	0	3	10	2718	I-59	INTERSTATE 59 at 16TH ST BRIDGE	Birmingham PD
19	Lee	Opelika	5	0	2	8	1505	S-38	AL-38 at GATEWAY DR	Opelika PD
20	Jefferson	Bessemer	4	0	2	7.5	913	S-5	AL-5 at AL-7	Bessemer PD
21	Calhoun	Anniston	4	0	1	7.5	297	S-1	AL-1 at AL-21	Anniston PD
22	Calhoun	Oxford	4	0	2	7.5	1301	S-4	AL-1 at AL-4	Oxford PD
23	Jefferson	Birmingham	4	0	2	7.5	4246	I-65	NO DESCRIPTION AVAILABLE	Birmingham PD

Top 35 Intersections in the East Region – (Continued)

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
24	Lee	Auburn	5	0	2	6	7323	1137	NO DESCRIPTION AVAILABLE	Auburn PD
25	Shelby	Alabaster	4	0	1	5	7501	S-119	COUNTY ROAD 26 at MONTEVALLO RD SR119 N JCT	Alabaster PD
26	St Clair	Pell City	5	0	1	4	1234	S-53	NO DESCRIPTION AVAILABLE	Pell City PD
27	Shelby	Pelham	6	0	2	3.33	71	I-65	NO DESCRIPTION AVAILABLE	Pelham PD
28	Jefferson	Birmingham	4	0	1	2.5	4792	1376	CARSON RD at 6TH ST NW	Birmingham PD
29	Calhoun	Oxford	5	0	1	2	1310	5178	NO DESCRIPTION AVAILABLE	Oxford PD
30	Jefferson	Hoover	5	0	1	2	155	S-150	AL-150 at AL-3	Hoover PD
31	Jefferson	Birmingham	6	0	1	1.67	3210	I-59	INTERSTATE 59 at 21ST ST INTERCHANGE	Birmingham PD
32	Shelby	Alabaster	6	0	0	0	278	S-3	INDUSTRIAL RD CO RD 66 at 1ST ST N SR-3 US-31	Alabaster PD
33	Talladega	Lincoln	5	0	0	0	53	S-77	AL-77 at CR-7	Lincoln PD
34	Jefferson	Bessemer	4	0	0	0	13917	1027	NO DESCRIPTION AVAILABLE	Bessemer PD
35	Calhoun	Oxford	4	0	0	0	847	6458	NO DESCRIPTION AVAILABLE	Oxford PD

Top 35 Segment in the East Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Node 2	Route	Location	Agency ORI
1	Talladega	Rural Talladega	4	1	3	35	8223	1171	S-21	AL-21 at AL HIGHWAY 21 and NO DESCRIP-TION AVAILABLE	ALEA - Jacksonville Post
2	Talladega	Rural Talladega	5	1	4	30	7301	7291	S-21	AL-21 at CR-213 and AL-21 at AL-76	ALEA - Jacksonville Post
3	Macon	Rural Macon	4	1	2	27.5	7457	7450	S-8	AL-15 at AL-8 and AL-15 at AL-8	ALEA - Opelika Post
4	St Clair	Rural St. Clair	4	2	1	27.5	7055	85	I-59	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
5	Jefferson	Hoover	4	1	2	27.5	15192	361	I-459	INTERSTATE 459 at I-65 INTERCHANGE and INTERSTATE 459 at LORNA RD	Hoover PD
6	Jefferson	Bessemer	10	3	5	25	13917	680	I-459	6 at I-459	Bessemer PD
7	Lee	Rural Lee	4	1	2	25	7759	8840	1207	NO DESCRIPTION AVAILABLE	ALEA - Opelika Post
8	St Clair	Rural St. Clair	9	1	7	23.33	7819	7780	I-20	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
9	St Clair	Rural St. Clair	4	0	4	22.5	70	42	I-20	CR-6 at S HILLCREST and NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
10	Macon	Rural Macon	6	2	2	21.67	7477	7510	I-85	NO DESCRIPTION AVAILABLE	ALEA - Opelika Post
11	Jefferson	Rural Jefferson	6	0	4	20	15125	14947	I-459	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
12	Chilton	Rural Chilton	5	1	2	20	8123	8067	I-65	NO DESCRIPTION AVAILABLE	ALEA - Montgomery Post
13	St Clair	Rural St. Clair	4	1	1	20	7522	7511	I-20	COMER AVE at OLD COAL CITY RD	ALEA - Birmingham Post
14	Jefferson	Birmingham	4	1	2	20	3199	1771	I-59	INTERSTATE 59 at BRIDGE CENTER ST and 123 at I-20	Birmingham PD
15	St Clair	Rural St. Clair	7	0	5	18.57	7536	7775	I-20	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
16	St Clair	Rural St. Clair	4	0	3	17.5	7877	536	I-20	AL-25 at 144B and NO DESCRIPTION AVAIL-ABLE	ALEA - Birmingham Post
17	Macon	Rural Macon	4	1	1	17.5	7205	7216	I-85	NO DESCRIPTION AVAILABLE	ALEA - Opelika Post
18	St Clair	Rural St. Clair	5	0	4	16	7287	7154	I-59	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
19	St Clair	Rural St. Clair	7	0	4	15.71	7780	7775	I-20	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
20	Chilton	Rural Chilton	6	1	2	15	8048	7760	I-65	NO DESCRIPTION AVAILABLE	ALEA - Montgomery Post
21	Talladega	Lincoln	4	0	3	15	32	25	I-20	NO DESCRIPTION AVAILABLE	ALEA - Jacksonville Post
22	Jefferson	Bessemer	4	0	3	15	1916	13857	I-59	NO DESCRIPTION AVAILABLE	Bessemer PD
23	Blount	Rural Blount	4	0	3	15	8075	8076	S-74	AL-74 at CR-41 and NO DESCRIPTION AVAILABLE	ALEA - Decatur Post

Top 35 Segments in the East Region – (Continued)

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Node 2	Route	Location	Agency ORI
24	Chilton	Rural Chilton	5	0	3	14	8146	8048	I-65	NO DESCRIPTION AVAILABLE	ALEA - Montgomery Post
25	Lee	Auburn	5	0	4	14	792	7327	I-85	I-85 at NEW WRIGHTS MILL RD and I-85 at SR 147 COLLEGE ST	Auburn PD
26	Chilton	Rural Chilton	4	0	2	12.5	8067	8122	I-65	NO DESCRIPTION AVAILABLE	ALEA - Montgomery Post
27	Jefferson	Birmingham	4	0	2	12.5	3186	3190	I-59	126B at I-20 and INTERSTATE 59 at VANDERBILT RD BRIDGE	Birmingham PD
28	Jefferson	Hoover	4	0	2	12.5	15139	292	I-459	INTERSTATE 459 at SR-150 INTER-CHANGE and INTERSTATE 459 at SR-3 US-31 INTERCHANGE	Hoover PD
29	Jefferson	Bessemer	4	0	2	12.5	13801	13917	I-459	NO DESCRIPTION AVAILABLE	Bessemer PD
30	Shelby	Pelham	6	0	3	11.67	260	71	I-65	NO DESCRIPTION AVAILABLE	Pelham PD
31	Chambers	Lanett	6	0	3	10	7146	7089	I-85	NO DESCRIPTION AVAILABLE	Lanett PD
32	Shelby	Rural Shelby	4	0	2	10	7773	7781	S-38	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
33	St Clair	Rural St. Clair	4	0	2	10	7055	28	I-59	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
34	Jefferson	Hoover	4	0	1	2.5	15152	292	I-459	INTERSTATE 459 at SULPHER SPRINGS and INTERSTATE 459 at SR-3 US-31 IN-TERCHANGE	Hoover PD
35	Macon	Rural Macon	5	0	0	0	7477	7418	I-85	38 at I-85	ALEA - Opelika Post

Top 32 Mileposted Locations (10 miles in Length) in the East Region with 4 or More Child Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Talladega	Rural Talladega	S-38	26	51	5	1	1	16	0.01	782.65	17154	ALEA - Jacksonville Post
2	Talladega	Sylacauga	S-21	203.4	228.4	7	1	2	14.29	0.02	364.32	7985	Sylacauga PD
3	Calhoun	Oxford	S-4	136.5	161.5	5	0	4	14	0.01	382.79	8390	Oxford PD
4	Macon	Rural Macon	I-85	27	52	4	0	2	12.5	0	1448.32	31744	ALEA - Opelika Post
5	Jefferson	Gardendale	I-65	271	296	6	0	2	8.33	0	2109.97	46246	ALEA - Decatur Post
6	Lee	Opelika	I-85	60	81	8	0	4	7.5	0.01	1226.63	32006	Opelika PD
7	Jefferson	Bessemer	S-5	101.4	126.4	4	0	2	7.5	0.01	594.17	13023	Bessemer PD
8	Calhoun	Anniston	S-21	248.2	273.2	8	0	2	6.25	0.01	786.35	17235	Anniston PD
9	St Clair	Pell City	S-53	217	242	4	0	1	5	0.01	368.88	8085	Pell City PD
10	Chilton	Clanton	S-3	198.8	223.8	6	0	2	5	0.02	260.56	5711	Clanton PD
11	Jefferson	Birmingham	I-20	132.1	157.1	6	0	3	5	0	2522.79	55294	ALEA - Birmingham Post
12	Shelby	Columbiana	S-70	0.6	9	4	0	1	5	0.05	87.61	5715	Columbiana PD
13	Jefferson	Trussville	S-7	135	160	10	0	3	4	0.01	696.24	15260	Trussville PD
14	Jefferson	Birmingham	S-79	0.3	25.3	5	0	2	4	0.01	813.95	17840	Birmingham PD
15	Jefferson	Hoover	I-65	246	271	26	0	6	3.85	0.01	4604.29	100916	ALEA - Birmingham Post
16	Elmore	Prattville	S-14	154.5	179.5	7	0	2	2.86	0.01	617.08	13525	ALEA - Montgomery Post
17	Elmore	Wetumpka	S-9	100.3	125.3	7	0	2	2.86	0.01	1389.14	30447	Wetumpka PD
18	Jefferson	Birmingham	S-5	127	152	11	0	2	2.73	0.01	1206.55	26445	Birmingham PD
19	Tallapoosa	Alexander City	S-22	105.6	130.6	4	0	1	2.5	0.02	251.39	5510	Alexander City PD
20	Jefferson	Hoover	I-459	2.6	27.6	16	0	2	2.5	0	3392.36	74353	Hoover PD
21	Shelby	Mountain Brook	S-38	0.2	25.2	30	0	3	2.33	0.02	1949.1	42720	Mountain Brook PD
22	Etowah	Gadsden	S-1	260	285	15	0	1	2	0.02	934.9	20491	Gadsden PD
23	Jefferson	Birmingham	I-59	106	131	29	0	4	1.72	0.01	3890.44	85270	Birmingham PD

Top 32 Mileposted Locations in the East Region with 4 or More Child Restraint Deficient Crashes – (Continued)

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
24	Jefferson	Hoover	S-3	259	284	22	0	3	1.36	0.01	1493.44	32733	Hoover PD
25	Chilton	Rural Autauga	I-65	191	216	5	0	0	0	0	1594.23	34942	ALEA - Montgomery Post
26	Shelby	Rural Chilton	I-65	217.5	242.5	8	0	0	0	0	2247.62	49263	ALEA - Montgomery Post
27	Blount	Blountsville	S-53	267	292	5	0	0	0	0.02	312.12	6841	Arab PD
28	Shelby	Calera	S-3	229	254	4	0	0	0	0.01	435.81	9552	Calera PD
29	Jefferson	Rural Jefferson	I-59	134.3	159.3	5	0	0	0	0	1532.64	33592	ALEA - Birmingham Post
30	Talladega	Rural Talladega	I-20	158.3	183.3	7	0	0	0	0	1732.34	37969	ALEA - Jacksonville Post
31	Jefferson	Hoover	S-150	0.3	12	9	0	0	0	0.02	399.44	18707	Hoover PD
32	Shelby	Montevallo	S-119	0.1	25.1	4	0	0	0	0.01	702.17	15390	Montevallo PD

Top 35 Intersections in the East Region with 2 or More Child Restraint Deficient Crashes

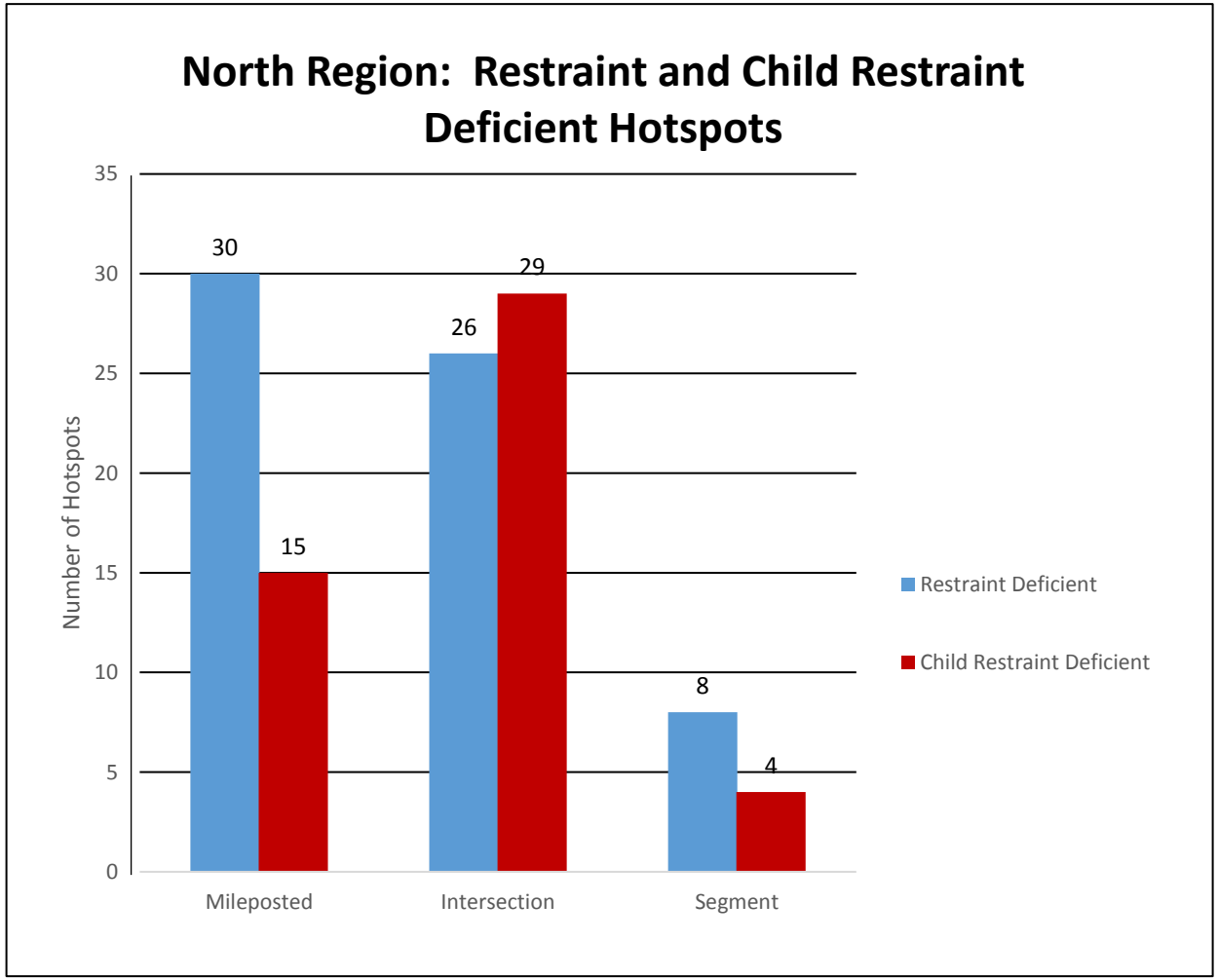
Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
1	Jefferson	Birmingham	2	0	1	15	4345	4245	NO DESCRIPTION AVAILABLE	Birmingham PD
2	Shelby	Rural Shelby	2	0	1	15	8053	S-38	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
3	Lee	Opelika	2	0	1	15	1067	5531	AL-1 at AL-51	Opelika PD
4	Jefferson	Homewood	3	0	1	10	35025	I-65	I-65 at LAKESHORE PKY	Homewood PD
5	Jefferson	Birmingham	2	0	1	10	2378	S-7	AL-4 at AL-7	Birmingham PD
6	Calhoun	Anniston	2	0	1	10	9486	S-1	NO NAME ST at S001	Anniston PD
7	Lee	Auburn	2	0	1	5	7971	S-15	AL-15 at CR-10	Auburn PD
8	Shelby	Alabaster	2	0	1	5	343	1303	COUNTY ROAD 68 at SIMMSVILLE RD CO RD 68	Alabaster PD
9	Jefferson	Gardendale	2	0	1	5	69	S-3	AL-3 at DECATUR HWY	Gardendale PD
10	Jefferson	Birmingham	6	0	1	3.33	1771	I-59	123 at I-20	Birmingham PD
11	Jefferson	Hoover	3	0	1	3.33	15192	I-459	INTERSTATE 459 at I-65 INTERCHANGE	Hoover PD
12	Shelby	Pelham	3	0	1	3.33	8259	S-119	NO DESCRIPTION AVAILABLE	Pelham PD
13	Jefferson	Homewood	4	0	1	2.5	185	I-65	256B at I-65	Homewood PD
14	Jefferson	Birmingham	4	0	0	0	2653	I-59	125 at 25TH ST N	Birmingham PD
15	Jefferson	Birmingham	3	0	0	0	15582	I-459	NO DESCRIPTION AVAILABLE	Birmingham PD
16	Jefferson	Rural Jefferson	3	0	0	0	14947	I-459	NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
17	Jefferson	Birmingham	3	0	0	0	2136	I-65	261A at I-65	Birmingham PD
18	Jefferson	Hoover	3	0	0	0	155	S-150	AL-150 at AL-3	Hoover PD
19	Jefferson	Birmingham	2	0	0	0	2418	2418	AL-3 at AL-7	Birmingham PD
20	Shelby	Birmingham	2	0	0	0	8671	8671	74TH ST S at ROME AVE	Birmingham PD
21	Jefferson	Mountain Brook	2	0	0	0	238	5351	NO DESCRIPTION AVAILABLE	Mountain Brook PD
22	Jefferson	Vestavia Hills	2	0	0	0	164	5042	CR-99 at COLUMBIANA RD	Vestavia Hills PD
23	Jefferson	Birmingham	2	0	0	0	1511	3447	21ST STREET ENSLEY at AVENUE G	Birmingham PD

Top 35 Intersections in the East Region with 2 or More Child Restraint Deficient Crashes – (Continued)

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
24	Shelby	Calera	2	0	0	0	69	S-25	NO DESCRIPTION AVAILABLE	Calera PD
25	Etowah	Attalla	2	0	0	0	318	S-1	AL-1 at AL-74	Attalla PD
26	Jefferson	Birmingham	2	0	0	0	3210	I-59	INTERSTATE 59 at 21ST ST INTER-CHANGE	Birmingham PD
27	Jefferson	Hoover	2	0	0	0	292	S-3	INTERSTATE 459 at SR-3 US-31 INTER-CHANGE	Hoover PD
28	Shelby	Hoover	2	0	0	0	8057	S-38	US 280 at VALLEYDALE RD	Hoover PD
29	Calhoun	Oxford	2	0	0	0	189	S-4	AL-1 at AL-21	Oxford PD
30	Jefferson	Homewood	2	0	0	0	13037	S-3	NO DESCRIPTION AVAILABLE	Homewood PD
31	Jefferson	Vestavia Hills	2	0	0	0	15612	4870	NO DESCRIPTION AVAILABLE	Vestavia Hills PD
32	Jefferson	Birmingham	2	0	0	0	4698	7686	AL-75 at PARKWAY E	Birmingham PD
33	Jefferson	Vestavia Hills	2	0	0	0	97	S-3	AL-3 at CR-99	Vestavia Hills PD
34	Jefferson	Hoover	2	0	0	0	15987	S-150	AL-150 at CR-2	Hoover PD
35	Shelby	Hoover	2	0	0	0	9554	S-38	NO DESCRIPTION AVAILABLE	Hoover PD

Top 14 Segments in the East Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Node 2	Route	Location	Agency ORI
1	Macon	Rural Macon	2	0	1	15	7245	9	I-85	26 at I-85 and NO DESCRIPTION AVAILABLE	ALEA - Opelika Post
2	Macon	Rural Macon	2	0	1	10	7245	7234	I-85	26 at I-85 and NO DESCRIPTION AVAILABLE	ALEA - Opelika Post
3	Lee	Opelika	2	0	1	10	1069	339	I-85	INTERSTATE 85 at S001 and INTERSTATE 85 at S051	Opelika PD
4	Jefferson	Hoover	2	0	1	10	361	15192	I-459	INTERSTATE 459 at LORNA RD and INTERSTATE 459 at I-65 INTERCHANGE	Hoover PD
5	Shelby	Rural Shelby	2	0	0	0	9804	10666	S-38	NO DESCRIPTION AVAILABLE	Shelby County Sheriff's Office
6	Shelby	Columbiana	2	0	0	0	73	350	1054	NO DESCRIPTION AVAILABLE	Columbiana PD
7	Lee	Opelika	2	0	0	0	59	1555	S-38	AL-38 at FREDERICK RD and NO DESCRIPTION AVAILABLE	Opelika PD
8	Jefferson	Rural Jefferson	2	0	0	0	20038	13024	I-59	33B at EDWARDS LAKE RD and NO DESCRIPTION AVAILABLE	ALEA - Birmingham Post
9	Jefferson	Bessemer	2	0	0	0	680	13917	I-459	6 at I-459 and NO DESCRIPTION AVAILABLE	Bessemer PD
10	Jefferson	Birmingham	2	0	0	0	2653	3186	I-59	125 at 25TH ST N and 126B at I-20	Birmingham PD
11	Chilton	Rural Chilton	2	0	0	0	8123	8067	I-65	NO DESCRIPTION AVAILABLE	ALEA - Montgomery Post
12	Shelby	Calera	2	0	0	0	7520	7272	I-65	NO DESCRIPTION AVAILABLE	Calera PD
13	Jefferson	Hoover	2	0	0	0	390	292	S-3	AL-3 at MONTGOMERY HWY and INTERSTATE 459 at SR-3 US-31 INTERCHANGE	Hoover PD
14	Shelby	Hoover	2	0	0	0	8057	8056	S-38	US 280 at VALLEYDALE RD and MEADOW BROOK RD at US-280 SR-38	Hoover PD


North Region: Restraint and Child Restraint Deficient Hotspots
Number of Hotspots
35
30
25
20
15
10
5
0
30
15
26
29
8
4
Mileposted
Intersection
Segment
Restraint Deficient
Child Restraint Deficient

Top 30 Mileposted Locations (10 Miles in Length) in the North Region with 20 or More Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Limestone	Rural Limestone	S-2	62.1	72.1	21	2	16	24.29	0.1	208.54	11427	ALEA - Decatur Post
2	Morgan	Priceville	S-67	25	35	20	2	14	22	0.11	180.55	9893	Priceville PD
3	Marshall	Rural Marshall	S-69	273.2	281	20	2	13	20	0.1	195.05	13702	ALEA - Huntsville Post
4	Madison	Rural Madison	S-1	336	346	30	2	22	18.33	0.05	573.96	31450	ALEA - Huntsville Post
5	Walker	Jasper	S-5	161.9	171.9	23	2	15	17.83	0.06	363.3	19907	Jasper PD
6	Madison	Huntsville	S-53	319	329	26	1	19	17.69	0.07	385.51	21124	Huntsville PD
7	Madison	Huntsville	I-565	6.4	16.4	24	2	15	17.5	0.02	1160.19	63572	Huntsville PD
8	Colbert	Tuscumbia	S-2	15.9	25.9	23	2	13	17.39	0.08	301.95	16545	Tuscumbia PD
9	Cullman	Cullman	S-3	316.4	326.4	25	4	12	17.2	0.09	275.37	15089	ALEA - Decatur Post
10	Madison	Rural Madison	S-1	346.4	353	25	1	16	16.8	0.11	235.64	19563	ALEA - Huntsville Post
11	Jackson	Scottsboro	S-2	130.8	140.8	21	1	13	16.19	0.07	303.33	16621	Scottsboro PD
12	Franklin	Russellville	S-13	291.8	301.8	22	1	14	15.91	0.08	265.88	14569	Russellville PD
13	Limestone	Rural Limestone	S-2	75	85	23	1	13	15.65	0.06	374.65	20529	ALEA - Decatur Post
14	Marshall	Boaz	S-168	6.9	16.9	21	2	10	15.24	0.18	117.26	6425	Boaz PD
15	Cullman	Rural Cullman	I-65	290.5	300.5	24	3	11	15	0.03	725.66	39762	ALEA - Decatur Post
16	Marshall	Albertville	S-75	50.3	60.3	27	2	14	14.07	0.21	130.91	7173	Albertville PD
17	Marshall	Albertville	S-205	4.4	14.4	20	0	14	14	0.22	92.2	5052	Albertville PD
18	Madison	Rural Madison	S-53	329	339	31	3	12	13.87	0.19	164.8	9030	ALEA - Huntsville Post
19	Morgan	Hartselle	S-3	344.5	354.5	24	0	13	13.75	0.07	332.55	18222	Hartselle PD
20	Madison	Huntsville	S-2	95.4	105.4	24	2	12	13.75	0.04	546.15	29926	Huntsville PD
21	Morgan	Decatur	S-3	355	365	36	0	20	11.94	0.07	480.16	26310	Decatur PD
22	Cullman	Rural Cullman	I-65	300.5	310.5	21	2	7	11.43	0.03	731.04	40057	ALEA - Decatur Post
23	Madison	Owens Crossroads	S-1	315.5	325.5	20	0	10	11	0.07	275.43	15092	Owens Crossroad PD

Top 30 Mileposted Locations in the North Region – (Continued)

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
24	Lauderdale	Muscle Shoals	S-2	26.1	36.1	23	0	11	10	0.05	426.34	23361	Muscle Shoals PD
25	Jackson	Scottsboro	S-35	42	52	34	1	13	10	0.16	214.07	11730	Scottsboro PD
26	Marshall	Albertville	S-1	278	288	53	0	26	9.43	0.11	491	26904	Albertville PD
27	Marshall	Guntersville	S-1	288	298	43	1	17	9.07	0.1	449.02	24604	Guntersville PD
28	Madison	Huntsville	S-2	85.4	95.4	54	2	18	8.52	0.07	730.57	40031	Huntsville PD
29	Madison	Huntsville	S-53	309	319	28	0	9	7.14	0.03	1057.09	57923	Huntsville PD
30	Madison	Huntsville	S-1	326	336	20	0	7	7	0.03	777.21	42587	Huntsville PD

Top 26 Intersections in the North Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
1	Madison	Rural Madison	4	1	3	30	7918	S-2	DUG HILL RD at TRAIL OF TEARS CORRI-DOR	ALEA - Huntsville Post
2	Madison	Rural Madison	6	0	6	25	7103	S-1	CHARITY LN at NO DESCRIPTION AVAILA-BLE	ALEA - Huntsville Post
3	Jackson	Scottsboro	4	0	3	20	697	S-2	CR-33 at JOHN T REID PKY	Scottsboro PD
4	Marshall	Rural Marshall	4	0	3	17.5	7766	S-69	AL-69 at CR-50	ALEA - Huntsville Post
5	Madison	Huntsville	4	0	4	17.5	2065	5626	DRAKE AVE SW at TRIANA BLVD SW	Huntsville PD
6	Madison	Huntsville	4	0	4	17.5	13571	I-565	NO DESCRIPTION AVAILABLE	Huntsville PD
7	Colbert	Tuscumbia	4	0	2	15	7515	S-2	AL-13 at AL-157	Tuscumbia PD
8	Marshall	Guntersville	6	0	3	13.33	407	S-1	AL-1 at AL-69	Guntersville PD
9	Colbert	Rural Colbert	4	0	2	12.5	7957	1209	AL-133 at CR-22	ALEA - Sheffield Post
10	Jackson	Scottsboro	9	0	4	11.11	642	S-35	NO DESCRIPTION AVAILABLE	Scottsboro PD
11	Lauderdale	Florence	5	0	2	10	317	S-2	AL-13 at AL-157	Florence PD
12	Lauderdale	Florence	5	0	3	10	1671	S-133	AL-13 at AL-133	Florence PD
13	Cullman	Cullman	5	0	4	10	1193	S-157	NO DESCRIPTION AVAILABLE	Cullman PD
14	Marshall	Albertville	5	0	4	10	749	S-1	AL-1 at CR-65	Albertville PD
15	Colbert	Muscle Shoals	4	0	3	10	274	5448	W AVALON AVE at BROADWAY AVE	Muscle Shoals PD
16	Madison	Huntsville	4	0	3	10	8024	6178	AL-53 at ARDMORE HWY	Huntsville PD
17	Madison	Madison	4	0	3	7.5	200	1005	AL-2 at WALL TRIANA HWY	Madison PD
18	Marshall	Guntersville	4	0	2	7.5	9496	S-1	AL-1 at RED BARN RD	Guntersville PD
19	Madison	Huntsville	4	0	2	7.5	8161	S-20	HENDERSON RD at HENDERSON RD 1395	Huntsville PD
20	Madison	Huntsville	5	0	2	6	13576	I-565	AL-20 at 17B	Huntsville PD
21	Lauderdale	Florence	5	0	2	6	9998	S-157	NO DESCRIPTION AVAILABLE	Florence PD

Top 26 Intersections in the North Region with 4 or More Restraint Deficient Crashes – (Continued)

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
22	Limestone	Rural Limestone	4	0	1	5	7838	S-2	AL-2 at CR-99	ALEA - Decatur Post
23	Marshall	Albertville	4	0	2	5	358	S-1	AL-1 at E MAIN ST	Albertville PD
24	Marshall	Albertville	4	0	1	2.5	175	S-1	AL-1 at PORTWOOD DR	Albertville PD
25	Madison	Huntsville	4	0	0	0	2356	S-53	AL-2 at AL-53	Huntsville PD
26	Jackson	Scottsboro	4	0	0	0	252	S-2	AL-279 at COUNTY PARK RD	Scottsboro PD

Top 8 Segments in the North Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Node 2	Route	Location
1	Jackson	Rural Jackson	5	1	4	32	69	8210	1041	AL-35 at CR-67
2	Cullman	Rural Cullman	5	1	4	26	7541	7281	I-65	NO DESCRIPTION AVAILABLE
3	Madison	Madison	4	0	4	25	448	8264	I-565	NO DESCRIPTION AVAILABLE
4	Dekalb	Rural Dekalb	5	1	3	24	7230	177	I-59	CR-29 at CR-457 and NO DESCRIPTION AVAILABLE
5	Limestone	Rural Limestone	4	0	3	20	7086	7088	S-127	AL-127 at NO DESCRIPTION AVAILABLE and AL-127 at AL HIGH-WAY 127
6	Dekalb	Rural Dekalb	5	0	3	14	8816	34	I-59	CR-280 at GANN RD SW
7	Cullman	Rural Cullman	4	0	2	10	7123	7281	I-65	NO DESCRIPTION AVAILABLE
8	Jackson	Scottsboro	4	0	1	7.5	697	730	1194	CR-33 at JOHN T REID PKY and CR-33 at MOODY RIDGE RD

Top 15 Mileposted Locations (10 miles in Length) in the North Region with 4 or More Child Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Madison	Huntsville	S-53	326	346	8	1	1	10	0.02	343.17	9402	Huntsville PD
2	Walker	Jasper	S-5	155	180	4	0	1	7.5	0.01	662.79	14527	Jasper PD
3	Morgan	Decatur	S-67	34	48	8	0	3	7.5	0.01	618.59	24211	Decatur PD
4	Lauderdale	Florence	S-133	2.5	17	6	0	2	6.67	0.01	449.99	17005	Florence PD
5	Morgan	Hartselle	S-3	344.9	369.9	11	0	3	5.45	0.01	942.34	20654	Hartselle PD
6	Marshall	Rural Marshall	S-75	29	54	6	0	2	5	0.02	301.76	6614	ALEA - Huntsville Post
7	Limestone	Athens	S-2	59.8	84.8	11	0	2	4.55	0.02	730.18	16004	Athens PD
8	Madison	Huntsville	S-2	87	112	22	0	6	4.09	0.02	1417.3	31064	Huntsville PD
9	Madison	Rural Madison	S-1	337.5	353	5	0	1	4	0.01	700.29	24756	ALEA - Huntsville Post
10	Jackson	Scottsboro	S-35	47.5	69	5	0	1	4	0.03	189.95	4841	Scottsboro PD
11	Marshall	Guntersville	S-1	286.3	311.3	8	0	2	2.5	0.01	834.3	18286	Guntersville PD
12	Madison	Huntsville	I-565	3	22	9	0	1	2.22	0	2092.74	60353	Huntsville PD
13	Madison	Huntsville	S-53	298.5	323.5	16	0	2	1.25	0.01	1625.03	35617	Huntsville PD
14	Madison	Huntsville	S-1	312.4	337.4	10	0	0	0	0.01	1251.22	27424	Huntsville PD
15	Colbert	Muscle Shoals	S-2	26.8	51.8	5	0	0	0	0.01	993.48	21775	Muscle Shoals PD

Top 29 Intersections in the North Region with 2 or More Child Restraint Deficient Crashes

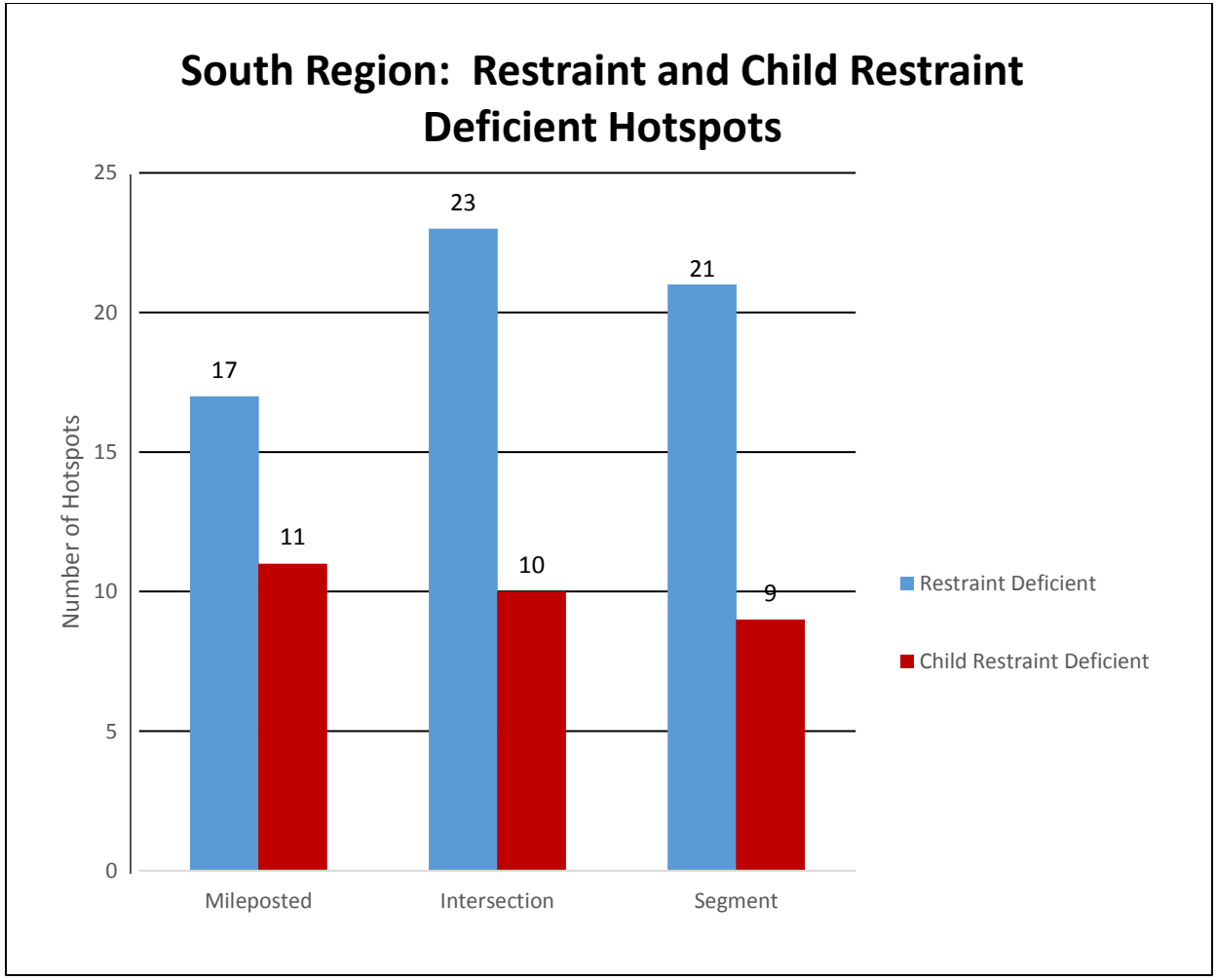
Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
1	Marshall	Boaz	2	0	1	15	581	S-1	N SNEAD ST at SPARKS AVE	Boaz PD
2	Madison	Rural Madi-son	2	0	1	15	7570	S-53	AL-53 at JEFF RD	ALEA - Huntsville Post
3	Lauderdale	Florence	2	0	1	15	126	5074	N PINE ST at W TUSCALOOSA ST	Florence PD
4	Morgan	Priceville	3	0	1	10	19	S-67	NO DESCRIPTION AVAILABLE	Priceville PD
5	Madison	Madison	2	0	1	10	1347	1005	WALL TRIANA HWY at WALL-TRIANA HWY SW	Madison PD
6	Madison	Huntsville	2	0	1	10	1810	5420	SPRINGHOUSE RD SE at TEAKWOOD DR SW	Huntsville PD
7	Jackson	Scottsboro	2	0	1	10	307	S-35	AL-35 at GANT RD	Scottsboro PD
8	Lauderdale	Florence	2	0	1	5	360	5074	W MOBILE ST at N PINE ST	Florence PD
9	Madison	Huntsville	2	0	1	5	49	5932	LEVERT ST NE at OAKWOOD AVE NE	Huntsville PD
10	Madison	Huntsville	2	0	1	5	8031	S-53	NO DESCRIPTION AVAILABLE	Huntsville PD
11	Madison	Huntsville	2	0	1	5	5344	S-2	MOORES MILL RD at NO DESCRIPTION AVAILABLE	Huntsville PD
12	Madison	Huntsville	2	0	1	5	8087	S-2	AL-2 at SLAUGHTER RD	Huntsville PD
13	Madison	Huntsville	2	0	1	5	8079	S-2	AL-2 at PERIMETER PKY NW	Huntsville PD
14	Madison	Huntsville	2	0	1	5	2313	6017	AL-53 at HOLMES AVE NW	Huntsville PD
15	Madison	Huntsville	3	0	0	0	2796	S-53	BOB WALLACE AVE SW at MEMORIAL PKY SW	Huntsville PD
16	Madison	Huntsville	3	0	0	0	1711	5420	AIRPORT DR SE at AIRPORT RD SW	Huntsville PD
17	Madison	Huntsville	3	0	0	0	110	S-53	GOVERNORS DR SR-53 at MEMORIAL PKWY	Huntsville PD
18	Madison	Huntsville	2	0	0	0	805	6065	MERIDIAN ST at U S HWY 72 E	Huntsville PD
19	Morgan	Decatur	2	0	0	0	380	1205	CLEARVIEW ST SW at SPRING AVE SW	Decatur PD
20	Madison	Huntsville	2	0	0	0	4752	6017	HOLMES AVE NE at HOLMES AVE NW	Huntsville PD
21	Morgan	Decatur	2	0	0	0	3550	3299	AL-3 at 6TH AVE SE	Decatur PD
22	Madison	Huntsville	2	0	0	0	5079	5932	LEE HIGH DR NE at OAKWOOD AVE NE	Huntsville PD
23	Jackson	Scottsboro	2	0	0	0	642	S-35	NO DESCRIPTION AVAILABLE	Scottsboro PD

Top 29 Intersections in the North Region with 2 or More Child Restraint Deficient Crashes – (Continued)

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
24	Marshall	Albertville	2	0	0	0	663	S-75	AL-1 at AL-75	Albertville PD
25	Madison	Madison	2	0	0	0	539	1005	NO DESCRIPTION AVAILABLE	Madison PD
26	Madison	Madison	2	0	0	0	200	S-2	AL-2 at WALL TRIANA HWY	Madison PD
27	Colbert	Muscle Shoals	2	0	0	0	298	S-2	AL-13 at AL-157	Muscle Shoals PD
28	Madison	Huntsville	2	0	0	0	3277	5626	DRAKE AVE at MEMORIAL PKWY S	Huntsville PD
29	Madison	Huntsville	2	0	0	0	8164	1016	HENDERSON RD SW at ROCKHOUSE RD SW	Huntsville PD

Top 4 Segments in the North Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Node 2	Route	Location	Agency ORI
1	Walker	Rural Walker	2	0	1	10	192	10240	I-22	NO DESCRIPTION AVAILABLE	ALEA - Hamilton Post
2	Madison	Rural Madison	2	0	0	0	7084	7099	1280	BOBO SECTION RD at HILLS CHAPEL RD and BOBO SECTION RD at OLD HWY	ALEA - Huntsville Post
3	Morgan	Decatur	2	0	0	0	648	3096	5052	CARRIDALE ST at SANDLIN RD 15TH AVE and AUSTINVILLE RD SW at AUTUMN-WOOD DR SW	Decatur PD
4	Morgan	Decatur	2	0	0	0	1323	1805	S-67	SR-20 US-72 at SR-67 and NO DESCRIPTION AVAILABLE	Decatur PD


South Region: Restraint and Child Restraint Deficient Hotspots
Number of Hotspots
25
20
15
10
5
0
17
11
23
10
21
9
Mileposted
Intersection
Segment
Restraint Deficient
Child Restraint Deficient

Top 17 Mileposted Locations (10 Miles in Length) in the South Region with 20 or More Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Mobile	Rural Mobile	S-42	0.2	10.2	23	4	12	20	0.11	210.09	11512	ALEA - Mobile Post
2	Mobile	Creola	S-13	5.1	15.1	23	3	16	19.13	0.07	320.29	17550	Creola PD
3	Escambia	Rural Escambia	S-21	0	10	22	2	13	19.09	0.16	139.65	7652	ALEA - Evergreen Post
4	Dallas	Rural Dallas	S-8	82.7	92.7	22	2	14	18.64	0.1	228.54	12523	ALEA - Selma Post
5	Mobile	Saraland	I-65	11	21	23	3	14	17.83	0.03	859.28	47084	Saraland PD
6	Mobile	Mobile	I-10	10.3	20.3	30	4	17	17.67	0.03	1194.24	65438	Mobile PD
7	Baldwin	Daphne	S-181	8.2	18.2	25	1	18	16	0.11	234.04	12824	Daphne PD
8	Mobile	Mobile	I-65	1	11	51	5	27	13.92	0.04	1429.78	78344	Mobile PD
9	Mobile	Rural Mobile	I-10	0.2	10.2	27	3	12	13.7	0.03	813.48	44574	ALEA - Mobile Post
10	Mobile	Rural Mobile	S-188	0	10	22	0	13	12.27	0.41	53.53	2933	ALEA - Mobile Post
11	Mobile	Mobile	S-16	16	26	25	1	14	12	0.05	471.38	25829	Mobile PD
12	Baldwin	Rural Baldwin	I-10	31	41	27	1	13	11.85	0.03	1002.25	54918	ALEA - Mobile Post
13	Mobile	Rural Mobile	S-42	10.2	20.2	38	2	17	11.58	0.08	458.31	25113	ALEA - Mobile Post
14	Baldwin	Rural Baldwin	S-42	58.2	68.2	20	0	11	11.5	0.12	161.38	8843	ALEA - Mobile Post
15	Baldwin	Gulf Shores	S-59	0.1	10.1	37	0	21	10.27	0.06	640.23	35081	Gulf Shores PD
16	Mobile	Mobile	I-10	20.9	30.9	42	3	14	9.52	0.03	1285.37	70431	Mobile PD
17	Mobile	Prichard	S-17	0.4	10.4	59	1	23	8.14	0.29	202.89	11117	Prichard PD

Top 23 Intersections in the South Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
1	Mobile	Mobile	4	1	3	22.5	8853	I-65	INTERSTATE 65 at MOFFAT RD INTERCHANGE	Mobile PD
2	Mobile	Prichard	5	0	4	22	1760	I-165	I-165 at BAY BRIDGE RD 9550	Prichard PD
3	Mobile	Mobile	5	1	3	20	10409	S-16	NO DESCRIPTION AVAILABLE	Mobile PD
4	Mobile	Prichard	5	0	5	18	2222	1111	NO DESCRIPTION AVAILABLE	Prichard PD
5	Baldwin	Daphne	4	0	4	17.5	8841	S-181	NO DESCRIPTION AVAILABLE	Daphne PD
6	Mobile	Mobile	4	0	4	17.5	1939	I-65	AIRPORT BLVD at I-65	Mobile PD
7	Mobile	Prichard	6	0	5	15	1650	I-65	I-165 at I-65 INTERCHANGE	Prichard PD
8	Mobile	Mobile	6	0	4	13.33	3306	I-10	DAUPHIN ISLAND PKWY at I-10 INTERCHANGE	Mobile PD
9	Mobile	Mobile	4	0	2	12.5	9705	8860	PATTON AVE at PEACAN ST	Mobile PD
10	Mobile	Prichard	6	0	3	10	1270	S-17	AL-17 at AL-217	Prichard PD
11	Mobile	Mobile	4	0	3	10	9536	S-17	AL-17 at CLINTON AVE	Mobile PD
12	Mobile	Mobile	4	0	2	10	7114	S-42	I-65 SERVICE RD E SIDE at MOFFAT RD & INTER-CHANGE	Mobile PD
13	Mobile	Prichard	8	0	4	8.75	873	I-65	I-165 at SR-17 INTERCHANGE	Prichard PD
14	Mobile	Saraland	7	0	3	8.57	9410	I-65	NO DESCRIPTION AVAILABLE	Saraland PD
15	Mobile	Mobile	4	0	2	5	2239	1346	AIRPORT BLVD at CODY RD AT MOBILE CL	Mobile PD
16	Mobile	Mobile	4	0	2	5	635	5253	CODY RD at COTTAGE HILL RD	Mobile PD
17	Mobile	Mobile	4	0	1	5	4152	I-10	INTERSTATE 10 at GC WALLACE TUNNEL W SIDE	Mobile PD
18	Mobile	Prichard	6	0	1	3.33	927	S-17	AL-17 at S ATMORE AVE	Prichard PD
19	Mobile	Prichard	4	0	1	2.5	802	S-17	AL-17 at 1ST AVE	Prichard PD
20	Mobile	Prichard	4	0	1	2.5	1593	S-17	AL-17 at BEAR FORK RD	Prichard PD
21	Mobile	Mobile	4	0	1	2.5	1906	7146	COTTAGE HILL RD at E I-65 SERVICE RD S	Mobile PD
22	Mobile	Prichard	4	0	0	0	9523	S-17	AL-158 at AL-17	Prichard PD
23	Mobile	Mobile	4	0	0	0	1361	I-65	GOVERNMENT BLVD US HWY 90 at I-65	Mobile PD

Top 21 Segments in South Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Node 2	Route	Location
1	Baldwin	Rural Baldwin	5	2	3	34	9549	9747	I-65	45 at I-65
2	Baldwin	Rural Baldwin	4	2	1	32.5	9490	9486	I-65	NO DESCRIPTION AVAILABLE
3	Mobile	Rural Mobile	4	1	3	30	9195	9019	S-217	AL-217 at CR-92 and AL-217 at LANGLEY RD
4	Mobile	Rural Mobile	5	2	2	28	11460	9256	1762	CR-96 at W COY SMITH HWY and CR-96 at W COY SMITH HWY
5	Mobile	Rural Mobile	5	2	2	26	8314	8150	I-10	MCDONALD LN at OLD PASCAGOULA RD and INTERSTATE 10 at FRANKLIN CREEK BRIDGE
6	Escambia	Rural Escambia	6	2	3	25	7314	7072	I-65	ALGER RD at NO DESCRIPTION AVAILABLE and 69 at I-65
7	Baldwin	Rural Baldwin	4	0	4	25	13590	8166	I-10	NO DESCRIPTION AVAILABLE
8	Baldwin	Rural Baldwin	4	0	4	22.5	7399	7394	S-42	AL-42 at CR-24 and AL-42 at CR-3
9	Mobile	Satsuma	4	0	4	20	356	100	I-65	BAKER RD at I-65
10	Mobile	Saraland	4	0	4	17.5	317	9410	I-65	NO DESCRIPTION AVAILABLE
11	Mobile	Mobile	5	1	2	16	127	10560	I-10	I-10 at RIVIERE DU CHIEN RD and INTERSTATE 10 at HIGGINS RD IN-TERCHANGE
12	Baldwin	Daphne	5	0	4	16	8703	8841	I-10	NO DESCRIPTION AVAILABLE
13	Baldwin	Rural Baldwin	7	1	4	15.71	8956	8166	I-10	NO DESCRIPTION AVAILABLE
14	Baldwin	Rural Baldwin	7	0	3	10	8726	8703	I-10	NO DESCRIPTION AVAILABLE
15	Mobile	Rural Mobile	6	0	3	10	8219	8230	I-10	INTERSTATE 10 at MCDONALD RD BRIDGE and CR-17 at I-10 SER-VICE RD
16	Baldwin	Gulf Shores	4	0	2	10	543	316	S-59	AL-59 at CR-4
17	Baldwin	Rural Baldwin	4	0	2	7.5	9018	8726	I-10	NO DESCRIPTION AVAILABLE
18	Greene	Rural Greene	4	0	2	7.5	7425	7442	I-59	NO DESCRIPTION AVAILABLE
19	Baldwin	Rural Baldwin	5	0	2	6	8841	8901	I-10	NO DESCRIPTION AVAILABLE
20	Mobile	Rural Mobile	4	0	1	5	8782	8781	S-42	AL-42 at CR-27 and AL-42 at ILLINOIS ST
21	Conecuh	Rural Conecuh	5	0	1	4	7631	7606	I-65	101 at I-65

Top 11 Mileposted Locations (10 miles in Length) in the South Region with 4 or More Child Restraint Deficient Crashes

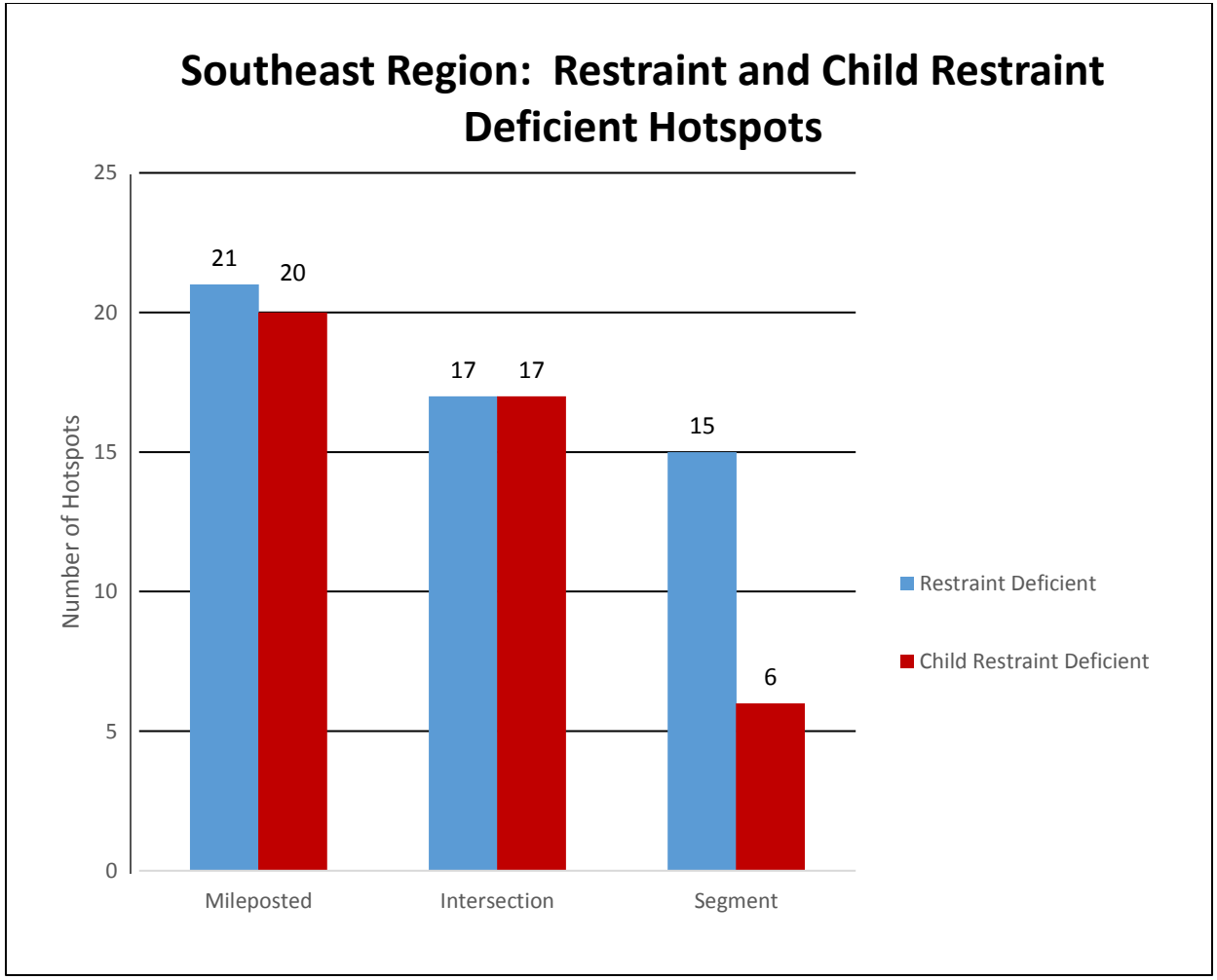
Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Mobile	Mobile	I-10	1.5	26.5	12	0	3	5	0	2756.3	60412	Mobile PD
2	Mobile	Prichard	S-17	0.3	25.3	4	0	2	5	0.01	421.12	9230	Prichard PD
3	Mobile	Mobile	I-65	1	26	9	0	3	4.44	0	2528.72	55424	Mobile PD
4	Baldwin	Rural Baldwin	I-10	26.6	51.6	12	0	3	4.17	0.01	2165.73	47468	ALEA - Mobile Post
5	Mobile	Mobile	S-42	1	26	7	0	1	2.86	0.01	949.09	20802	Mobile PD
6	Baldwin	Orange Beach	S-180	20	33	4	0	1	2.5	0.02	246.12	10374	Orange Beach PD
7	Mobile	Creola	S-13	4.5	29.5	5	0	1	2	0.01	746.52	16362	Creola PD
8	Baldwin	Foley	S-59	1	26	15	0	2	2	0.01	1357.62	29756	Foley PD
9	Baldwin	Bay Minette	S-3	2	27	5	0	0	0	0.01	476.33	10440	Bay Minette PD
10	Baldwin	Daphne	S-181	8.2	19	5	0	0	0	0.02	253.25	12849	Daphne PD
11	Mobile	Mobile	S-16	9.2	34.2	6	0	0	0	0.01	902.33	19777	Mobile PD

Top 10 Intersections in the South Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location
1	Mobile	Mobile	2	0	1	5	9839	I-165	BEAUREGARD ST US-43 at TELEGRAPH RD AT WATER ST
2	Mobile	Mobile	4	0	1	2.5	1283	I-65	INTERSTATE 10 at I-65 INTERCHANGE
3	Baldwin	Daphne	3	0	0	0	8841	S-181	NO DESCRIPTION AVAILABLE
4	Mobile	Rural Mobile	2	0	0	0	8782	1597	AL-42 at CR-27
5	Mobile	Mobile	2	0	0	0	11679	1346	AIRPORT BLV SER RD N SIDE at SPRINGDALE
6	Mobile	Mobile	2	0	0	0	6051	5047	CAMMEL ST at THOMPSON LN
7	Baldwin	Bay Minette	2	0	0	0	262	S-3	AL-3 at AL-59
8	Mobile	Creola	2	0	0	0	11090	I-65	NO DESCRIPTION AVAILABLE
9	Baldwin	Foley	2	0	0	0	41	S-59	AL-59 at CR-26
10	Mobile	Mobile	2	0	0	0	4047	I-10	INTERSTATE 10 at VIRGINIA ST INTERCHANGE

Top 9 Segment in the South Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Node 2	Route	Location	Agency ORI
1	Mobile	Creola	2	0	1	5	71	11090	S-13	NO DESCRIPTION AVAILABLE	Creola PD
2	Baldwin	Rural Baldwin	2	0	1	5	8726	8703	I-10	NO DESCRIPTION AVAILABLE	ALEA - Mobile Post
3	Mobile	Rural Mobile	2	0	0	0	8708	8710	1546	CR-25 at BLACKWELL NURSERY RD S and BLACKWELL NURSERY RD S at ED GEORGE RD	ALEA - Mobile Post
4	Baldwin	Rural Baldwin	2	0	0	0	9210	9291	S-3	AL-3 at AL-59 and AL-3 at AL-59	ALEA - Mobile Post
5	Baldwin	Orange Beach	2	0	0	0	34	356	S-161	NO DESCRIPTION AVAILABLE	Orange Beach PD
6	Baldwin	Rural Baldwin	2	0	0	0	8901	8841	I-10	NO DESCRIPTION AVAILABLE	ALEA - Mobile Post
7	Baldwin	Foley	2	0	0	0	71	63	S-59	AL-59 at E AZALEA AVE and AL-59 at S MCKENZIE ST	Foley PD
8	Mobile	Mobile	2	0	0	0	2139	2142	1346	CR-56 at AIRPORT BLVD and CR-56 at AIR-PORT BLVD	Mobile PD
9	Mobile	Mobile	2	0	0	0	4276	4286	I-10	INTERSTATE 10 at MOBILE-BALDWIN CO LINE and AL-16 at AL-42	Mobile PD


Southeast Region: Restraint and Child Restraint Deficient Hotspots
Number of Hotspots
25
20
15
10
5
0
21
20
17
17
15
6
Mileposted
Intersection
Segment
Restraint Deficient
Child Restraint Deficient

Top 21 Mileposted Locations (10 Miles in Length) in the Southeast Region with 20 or More Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Montgomery	Montgomery	I-65	165.1	175.1	23	5	12	20	0.02	1156.27	63357	Montgomery PD
2	Montgomery	Montgomery	I-85	0	10	22	4	10	18.18	0.01	1640.31	89880	Montgomery PD
3	Tuscaloosa	Rural Tuscaloosa	I-59	60.5	70.5	28	4	12	17.86	0.06	494.06	27072	ALEA - Tuscaloosa Post
4	Russell	Phenix City	S-1	104.4	114.4	21	0	15	17.62	0.05	392.48	21506	Phenix City PD
5	Montgomery	Montgomery	S-6	153.2	163.2	27	3	14	16.67	0.04	620.76	34014	Montgomery PD
6	Tuscaloosa	Tuscaloosa	S-6	46.3	56.3	50	4	27	14.6	0.08	618.64	33898	Tuscaloosa PD
7	Autauga	Rural Autauga	S-3	190	200	20	1	10	14.5	0.11	177.59	9731	ALEA - Montgomery Post
8	Pike	Troy	S-10	164.1	174.1	28	1	18	14.29	0.09	304.32	16675	Troy PD
9	Houston	Dothan	S-12	198.2	208.2	20	0	13	13.5	0.04	446.96	24491	Dothan PD
10	Tuscaloosa	Rural Tuscaloosa	I-59	91.1	101.1	23	0	12	13.04	0.03	914.62	50116	ALEA - Tuscaloosa Post
11	Tuscaloosa	Northport	S-6	36.1	46.1	20	1	9	12.5	0.05	411.48	22547	Northport PD
12	Tuscaloosa	Tuscaloosa	S-7	77.1	87.1	24	1	13	12.5	0.07	333.12	18253	Tuscaloosa PD
13	Tuscaloosa	Northport	S-13	194.6	204.6	22	0	14	12.27	0.04	508.41	27858	Northport PD
14	Tuscaloosa	Rural Tuscaloosa	I-59	81	91	26	1	12	11.54	0.03	869.92	47667	ALEA - Tuscaloosa Post
15	Barbour	Eufaula	S-1	59.6	69.6	20	1	11	11.5	0.05	375.42	20571	Eufaula PD
16	Dale	Ozark	S-53	37.5	47.5	20	1	11	11.5	0.07	302.15	16556	Ozark PD
17	Houston	Dothan	S-1	8.5	18.5	21	0	13	11.43	0.06	333.43	18270	Dothan PD
18	Tuscaloosa	Rural Tuscaloosa	I-59	71	81	52	4	18	11.35	0.06	884.25	48452	ALEA - Tuscaloosa Post
19	Tuscaloosa	Rural Tuscaloosa	S-69	134.1	144.1	36	0	21	11.11	0.08	427.74	23438	ALEA - Tuscaloosa Post
20	Tuscaloosa	Tuscaloosa	S-215	2.7	12.7	20	0	11	10.5	0.07	271.1	14855	Tuscaloosa PD
21	Houston	Dothan	S-210	0.1	10.1	27	0	14	9.63	0.05	533.48	29232	Dothan PD

Top 17 Intersection in the Southeast Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
1	Tuscaloosa	Tuscaloosa	5	0	5	28	9140	I-59	71A at I-20	Tuscaloosa PD
2	Tuscaloosa	Tuscaloosa	4	2	1	27.5	269	S-6	AL-6 at 15TH ST E	Tuscaloosa PD
3	Russell	Phenix City	5	0	3	16	1868	S-8	NO DESCRIPTION AVAILABLE	Phenix City PD
4	Tuscaloosa	Northport	4	0	3	15	386	S-13	AL-13 at AL-69	Northport PD
5	Russell	Phenix City	4	0	3	15	1218	S-1	AL-1 at AL-8	Phenix City PD
6	Houston	Dothan	4	0	3	15	156	S-210	AL-210 at HODGESVILLE RD	Dothan PD
7	Tuscaloosa	Tuscaloosa	4	0	2	12.5	8842	1244	NO DESCRIPTION AVAILABLE	Tuscaloosa PD
8	Pike	Troy	4	0	2	12.5	47	S-87	AL-10 at AL-53	Troy PD
9	Montgomery	Montgomery	5	0	3	10	4370	S-6	AL-21 at AL-53	Montgomery PD
10	Tuscaloosa	Tuscaloosa	4	0	2	10	363	S-13	AL-13 at AL-69	Tuscaloosa PD
11	Tuscaloosa	Tuscaloosa	5	0	3	8	9844	S-69	AL-69 S at AL-69	Tuscaloosa PD
12	Montgomery	Montgomery	5	0	4	8	4286	S-8	AL-21 at AL-53	Montgomery PD
13	Dale	Rural Dale	4	0	1	7.5	7006	S-167	AL-167 at AL-85	ALEA - Dothan Post
14	Tuscaloosa	Tuscaloosa	4	0	2	7.5	588	S-6	ALA 6 MC FARLAND BLVD at RIVER RD 1185	Tuscaloosa PD
15	Houston	Dothan	4	0	2	5	1256	S-12	AL-12 at ENTERPRISE HWY	Dothan PD
16	Tuscaloosa	Northport	5	0	1	4	606	5220	AL-13 at AL-6	Northport PD
17	Coffee	Enterprise	4	0	1	2.5	384	S-248	AL-12 at AL-167	Enterprise PD

Top 15 Segments in the Southeast Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Node 2	Route	Location	Agency ORI
1	Butler	Rural Butler	9	2	5	24.44	7342	7475	I-65	NO DESCRIPTION AVAILABLE	ALEA - Troy Post
2	Butler	Rural Butler	5	0	4	20	7680	7146	I-65	CR-16 at BLUE ROUND RD	ALEA - Troy Post
3	Tuscaloosa	Rural Tuscaloosa	5	0	4	18	7712	8268	I-59	NO DESCRIPTION AVAILABLE	ALEA - Tuscaloosa Post
4	Butler	Rural Butler	8	1	4	17.5	7591	7640	I-65	NO DESCRIPTION AVAILABLE	ALEA - Dothan Post
5	Tuscaloosa	Rural Tuscaloosa	4	0	3	17.5	8807	8802	S-69	AL-69 N at CR-46 and AL-69 N at CRABBE RD	ALEA - Tuscaloosa Post
6	Autauga	Rural Autauga	4	0	3	17.5	7353	7352	S-6	AL-6 at CR-3 and AL-6 at CR-47	ALEA - Montgomery Post
7	Tuscaloosa	Rural Tuscaloosa	4	0	3	17.5	7712	11935	I-59	NO DESCRIPTION AVAILABLE	ALEA - Tuscaloosa Post
8	Montgomery	Montgomery	4	1	1	15	7740	3143	I-85	INTERSTATE 85 at CITY LIMIT and BELL RD at I-85	Montgomery PD
9	Tuscaloosa	Rural Tuscaloosa	4	0	2	15	9140	9525	I-59	GOLDEN ACRES CIR at NO DESCRIPTION AVAILABLE	ALEA - Tuscaloosa Post
10	Tuscaloosa	Rural Tuscaloosa	8	1	3	13.75	8842	82	I-59	NO DESCRIPTION AVAILABLE	ALEA - Tuscaloosa Post
11	Montgomery	Rural Montgomery	5	1	1	12	7491	7222	S-6	AL-53 at AL-6 and AL-53 at AL-6	ALEA - Montgomery Post
12	Tuscaloosa	Rural Tuscaloosa	11	0	5	10.91	9525	7057	I-59	GOLDEN ACRES CIR at NO DESCRIPTION AVAILABLE and NO DESCRIPTION AVAILABLE	ALEA - Tuscaloosa Post
13	Tuscaloosa	Rural Tuscaloosa	7	0	3	10	7433	8845	I-59	NO DESCRIPTION AVAILABLE	ALEA - Tuscaloosa Post
14	Tuscaloosa	Rural Tuscaloosa	4	0	2	10	7433	10502	I-59	NO DESCRIPTION AVAILABLE	ALEA - Tuscaloosa Post
15	Tuscaloosa	Rural Tuscaloosa	7	0	2	5.71	7433	10225	I-59	NO DESCRIPTION AVAILABLE	ALEA - Tuscaloosa Post

Top 20 Mileposted Locations (10 Miles in Length) in the Southeast Region with 4 or More Child Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Russell	Phenix City	S-8	201.2	218	8	1	3	13.75	0.02	517.33	16873	Phenix City PD
2	Butler	Rural Butler	I-65	101	126	8	1	2	10	0.01	1105.4	24228	ALEA - Troy Post
3	Coffee	Enterprise	S-12	179	204	6	0	3	8.33	0.01	798.07	17492	Enterprise PD
4	Houston	Dothan	S-1	10.7	35.7	4	0	1	5	0.01	694.55	15223	Dothan PD
5	Russell	Phenix City	S-1	108.4	133.4	11	0	2	4.55	0.01	991.39	21729	Phenix City PD
6	Tuscaloosa	Tuscaloosa	S-69	135.7	160.7	11	0	3	4.55	0.02	654.72	14350	Tuscaloosa PD
7	Montgomery	Rural Montgom-ery	I-65	160	185	9	0	2	4.44	0	2359.27	51710	ALEA - Montgomery Post
8	Tuscaloosa	Tuscaloosa	S-7	77.2	102.2	7	0	2	4.29	0.01	475.28	10417	Tuscaloosa PD
9	Houston	Dothan	S-12	204.1	229.1	12	0	3	4.17	0.02	780.23	17101	Dothan PD
10	Barbour	Eufaula	S-1	48.6	73.6	5	0	2	4	0.01	644.59	14128	Eufaula PD
11	Tuscaloosa	Rural Tuscaloosa	S-13	194.4	219.4	6	0	1	3.33	0.01	665.35	14583	ALEA - Tuscaloosa Post
12	Houston	Dothan	S-210	4.3	14	6	0	2	3.33	0.01	457.49	25843	Dothan PD
13	Montgomery	Montgomery	I-85	1.3	26.3	19	0	3	3.16	0.01	2522.1	55279	Montgomery PD
14	Tuscaloosa	Tuscaloosa	S-6	31.9	56.9	19	0	2	2.63	0.02	1152.12	25252	Tuscaloosa PD
15	Montgomery	Montgomery	S-6	136.9	161.9	12	0	2	2.5	0.01	1043.31	22867	Montgomery PD
16	Pike	Troy	S-10	148.9	173.9	8	0	2	2.5	0.02	397.58	8714	Troy PD
17	Montgomery	Montgomery	S-8	136.1	161.1	7	0	1	1.43	0.01	482.76	10581	Montgomery PD
18	Houston	Dothan	S-53	4.6	29.6	6	0	0	0	0.01	515.47	11298	Dothan PD
19	Tuscaloosa	Rural Tuscaloosa	I-59	73.5	98.5	5	0	0	0	0	2189.32	47985	ALEA - Tuscaloosa Post
20	Houston	Dothan	S-52	42	67	5	0	0	0	0.02	319.42	7001	Dothan PD

Top 17 Intersections in the Southeast Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Route	Location	Agency ORI
1	Montgomery	Montgomery	2	0	2	15	4576	8017	NORMAN BRIDGE RD at E PATTON AVE	Montgomery PD
2	Montgomery	Montgomery	2	0	2	15	4308	8058	CR-626 at BELL RD	Montgomery PD
3	Tuscaloosa	Tuscaloosa	2	0	1	10	9228	I-59	AL-6 at 73	Tuscaloosa PD
4	Tuscaloosa	Tuscaloosa	4	0	1	7.5	16	S-7	AL-6 at AL-7	Tuscaloosa PD
5	Montgomery	Montgomery	2	0	1	5	3124	S-8	AL-21 at AL-53	Montgomery PD
6	Montgomery	Montgomery	2	0	1	5	3014	6009	ANN ST at I-85 INTERCHANGE	Montgomery PD
7	Montgomery	Montgomery	2	0	1	5	1059	8204	ANN ST at MADISON AVE	Montgomery PD
8	Montgomery	Montgomery	3	0	0	0	4370	S-8	AL-21 at AL-53	Montgomery PD
9	Russell	Phenix City	3	0	0	0	1218	S-1	AL-1 at AL-8	Phenix City PD
10	Russell	Phenix City	3	0	0	0	1511	S-1	SR 8/US 80 at SR 1/US 431	Phenix City PD
11	Tuscaloosa	Tuscaloosa	2	0	0	0	239	7564	AL-215 at BROOKHILL RD	Tuscaloosa PD
12	Tuscaloosa	Tuscaloosa	2	0	0	0	533	5558	AL-6 at CR-37	Tuscaloosa PD
13	Tuscaloosa	Tuscaloosa	2	0	0	0	195	S-6	AL-215 at AL-6	Tuscaloosa PD
14	Montgomery	Montgomery	2	0	0	0	4725	S-6	WEST BLVD at NO DESCRIPTION AVAILABLE	Montgomery PD
15	Tuscaloosa	Tuscaloosa	2	0	0	0	1105	7564	AL-215 at 12TH AVE	Tuscaloosa PD
16	Montgomery	Montgomery	2	0	0	0	4663	S-6	AL-21 at AL-6	Montgomery PD
17	Autauga	Prattville	2	0	0	0	7472	1138	AL-14 at CR-75	Prattville PD

Top 6 Segments in the Southeast Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	Severity Index	Node 1	Node 2	Route	Location	Agency ORI
1	Montgomery	Montgomery	2	0	1	10	7934	15038	S-271	AL-271 at HALCYON BLVD and AL-271 at TAYLOR CIR	Montgomery PD
2	Coffee	Enterprise	2	0	1	5	1576	387	S-12	AL-12 at AL-167	Enterprise PD
3	Tuscaloosa	Northport	2	0	0	0	396	399	S-69	AL-69 N at AL-69 and AL-69 N at AL-69	Northport PD
4	Tuscaloosa	Rural Tusca-loosa	2	0	0	0	7433	10225	I-59	NO DESCRIPTION AVAILABLE	ALEA - Tuscaloosa Post
5	Montgomery	Montgomery	2	0	0	0	3124	3095	I-85	AL-21 at AL-53 and INTERSTATE 85 at PERRY HILL RD INTERCHANGE	Montgomery PD
6	Tuscaloosa	Rural Tusca-loosa	2	0	0	0	7646	8845	I-59	NO DESCRIPTION AVAILABLE	ALEA - Tuscaloosa Post

8.9 – Restraint Issues Problem ID

8.9.1 Introduction

The goal of this problem identification is to assure that the restraint enforcement program considered by the state throughout FY 2018 is completely evidence-based, the evidence being derived from past data obtained from crash records.

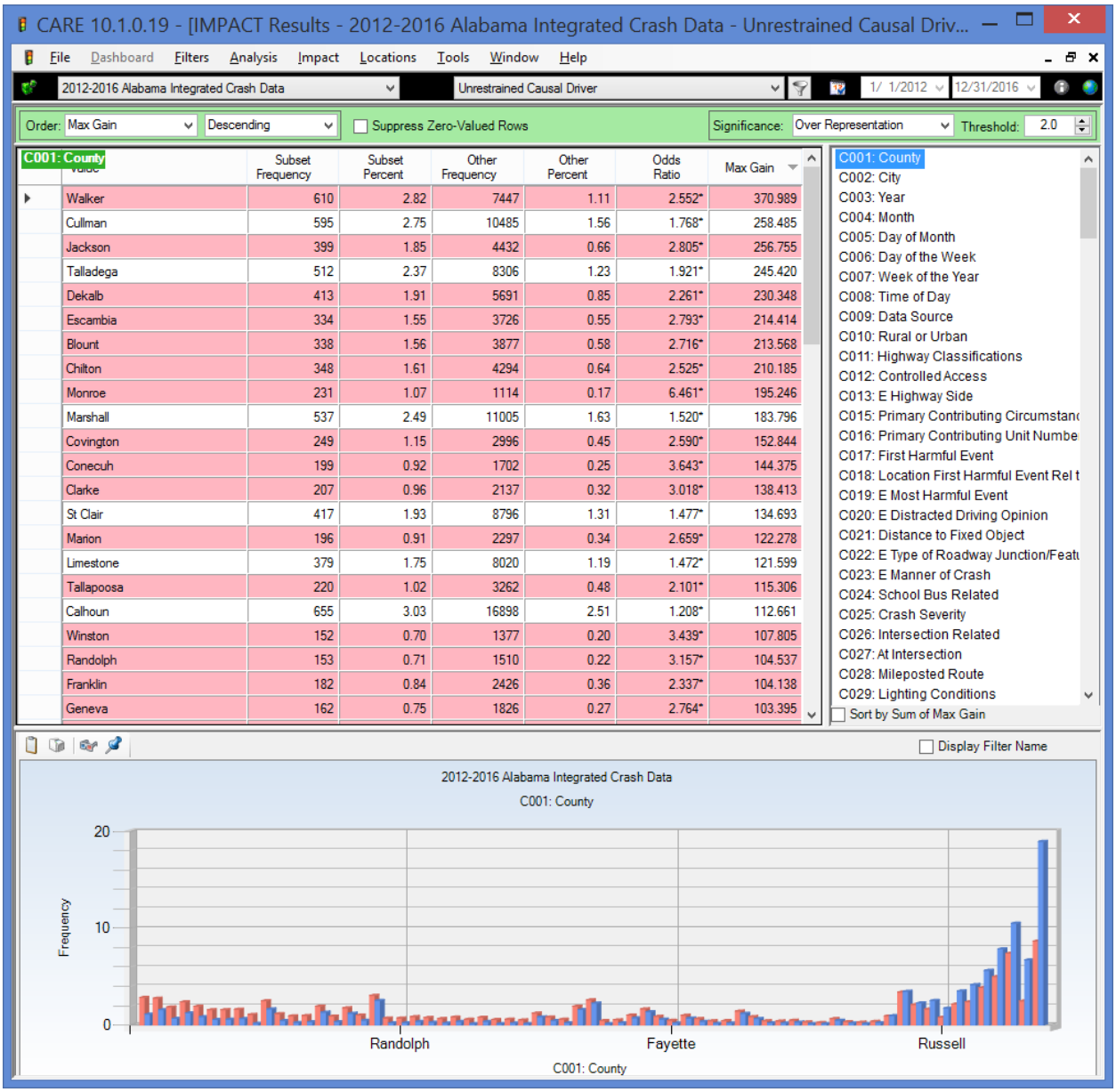
A problem identification study was conducted based on data that were consistent with that used in the FY 2018 HSP, calendar years 2012-2016. CARE is used to display the information. The comparisons made were between those crashes in which the causal drivers were not restrained (generally represented by the red bars in the charts) and those which were reported to be restrained (generally represented by the blue bars in the charts). The use of proper restraints by causal drivers is seen to be an excellent proxy for proper restraint use by all passengers in the vehicle.

Changes from what appeared in the previous year HSP will only be noted in cases where they are considered to be of significance for decision-making.

8.9.2 Geographical Factors

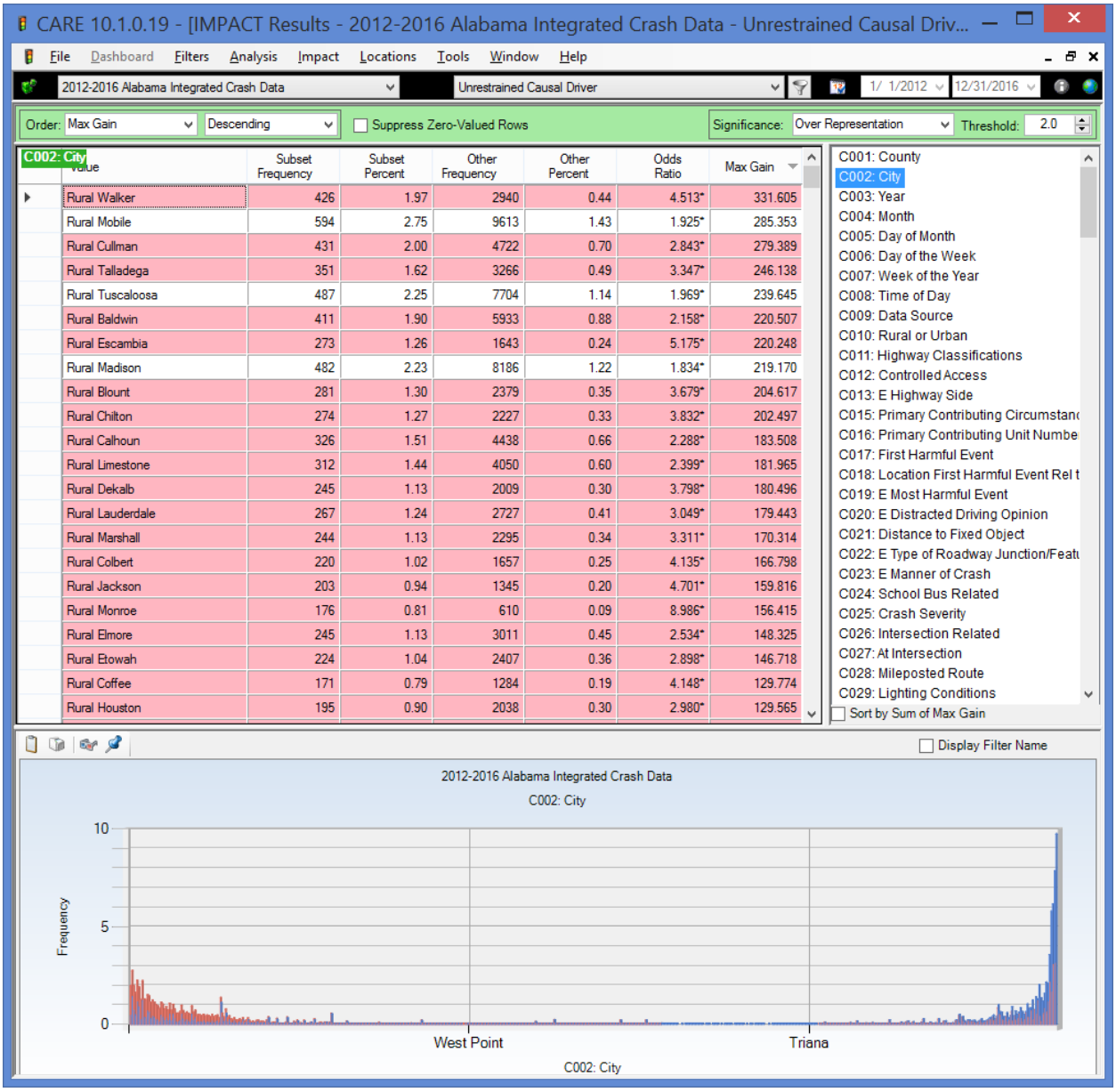
Geographical factors were analyzed in order to determine which areas are overrepresented for crashes involving drivers who did not use restraints. In order to determine these problem areas, geographical factors were analyzed in the following categories: county, city, rural versus urban, highway classification and locale.

8.9.2.1 County



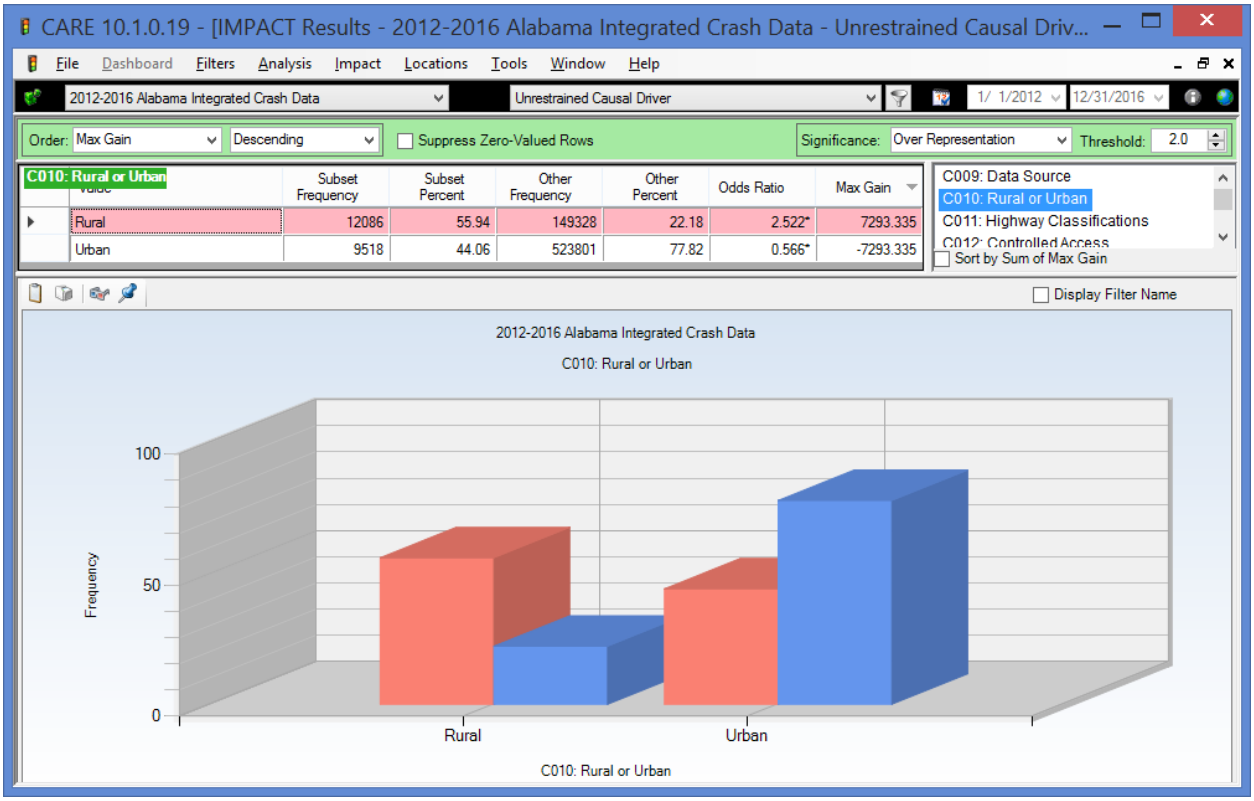
The counties with the greatest overrepresentation factors for crashes in which the driver failed to use restraints include Walker, Cullman, Jackson, Talladega, DeKalb and Escambia. The more populated urbanized counties generally showed the highest occupant restraint use.

8.9.2.2 City



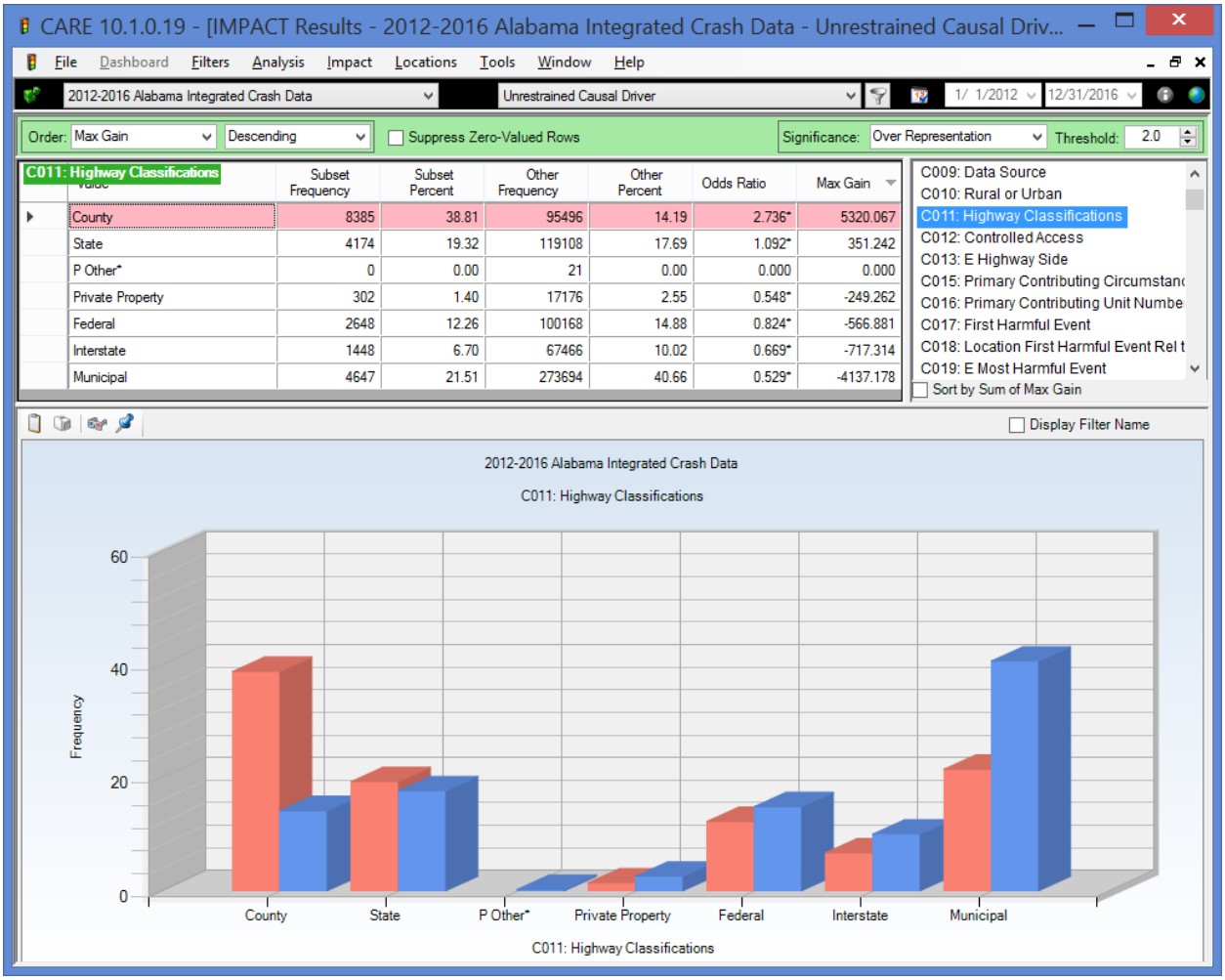
Overrepresented cities and county rural areas listed in the order of maximum gain are: rural Walker, rural Mobile, rural Cullman, and rural Talladega. Almost all of the overrepresentation occurs in the rural county areas. The most under represented cities in order of "best" first are as follows: Birmingham, Mobile, Montgomery, Huntsville and Tuscaloosa.

8.9.2.3 Rural/Urban



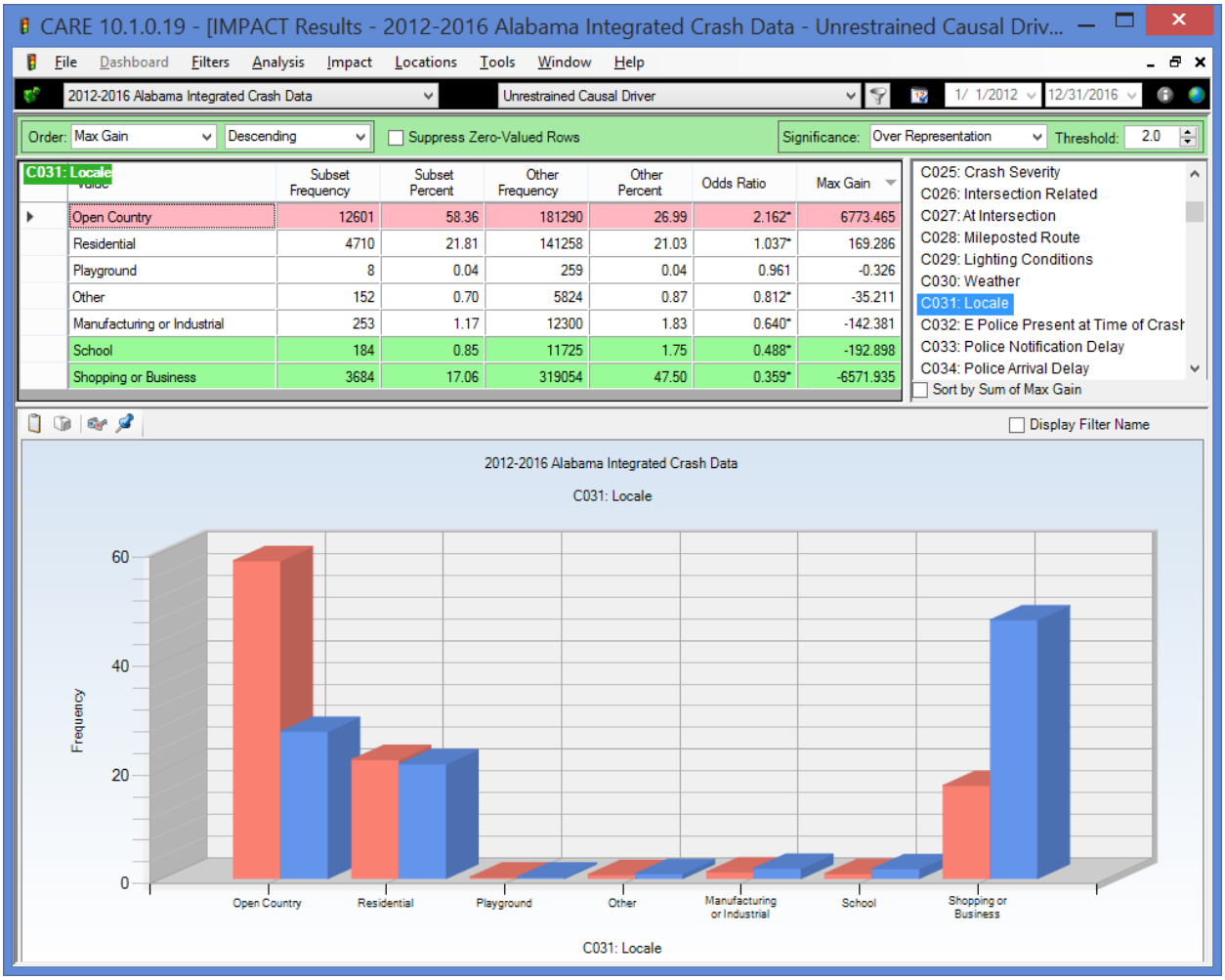
As expected from the city results above, the proportion of crashes involving drivers who use no restraints is greatly overrepresented in rural areas, being well over double what it is in the urban areas. The increased number of crashes in which restraints were used in urban areas might be attributed to greater police presence, newer vehicles, public information and education efforts, and the demographics of urban drivers in general. Speeds are generally much higher in the rural area and thus there is also a very high correlation of fatalities to rural driving.

8.9.2.4 Highway Classification



Crash incidents in which no restraints were used are greatly overrepresented on county highways with over 2.736 times the expected number of crashes. The proportion of crashes in which restraints were used is greater on federal, interstate, and municipal highway areas.

8.9.2.5 Locale

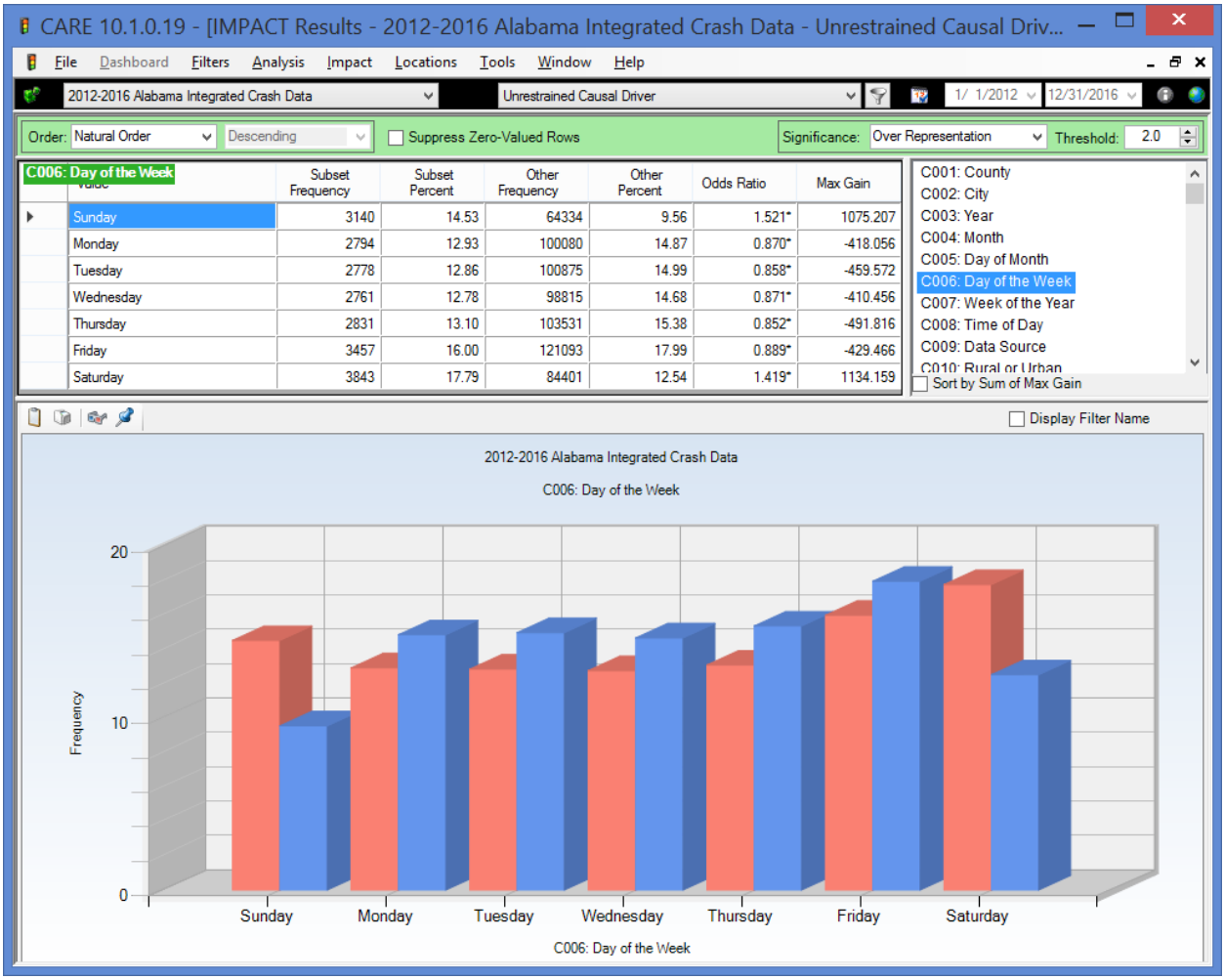


The crash incidents involving no restraints are overrepresented in open country areas. However, school and shopping areas are significantly underrepresented, indicating that crashes in these areas generally involve drivers who were much more apt to use their restraints. This gives the general type of locations at which restraint enforcement will be most effective.

8.9.3 Time Factors

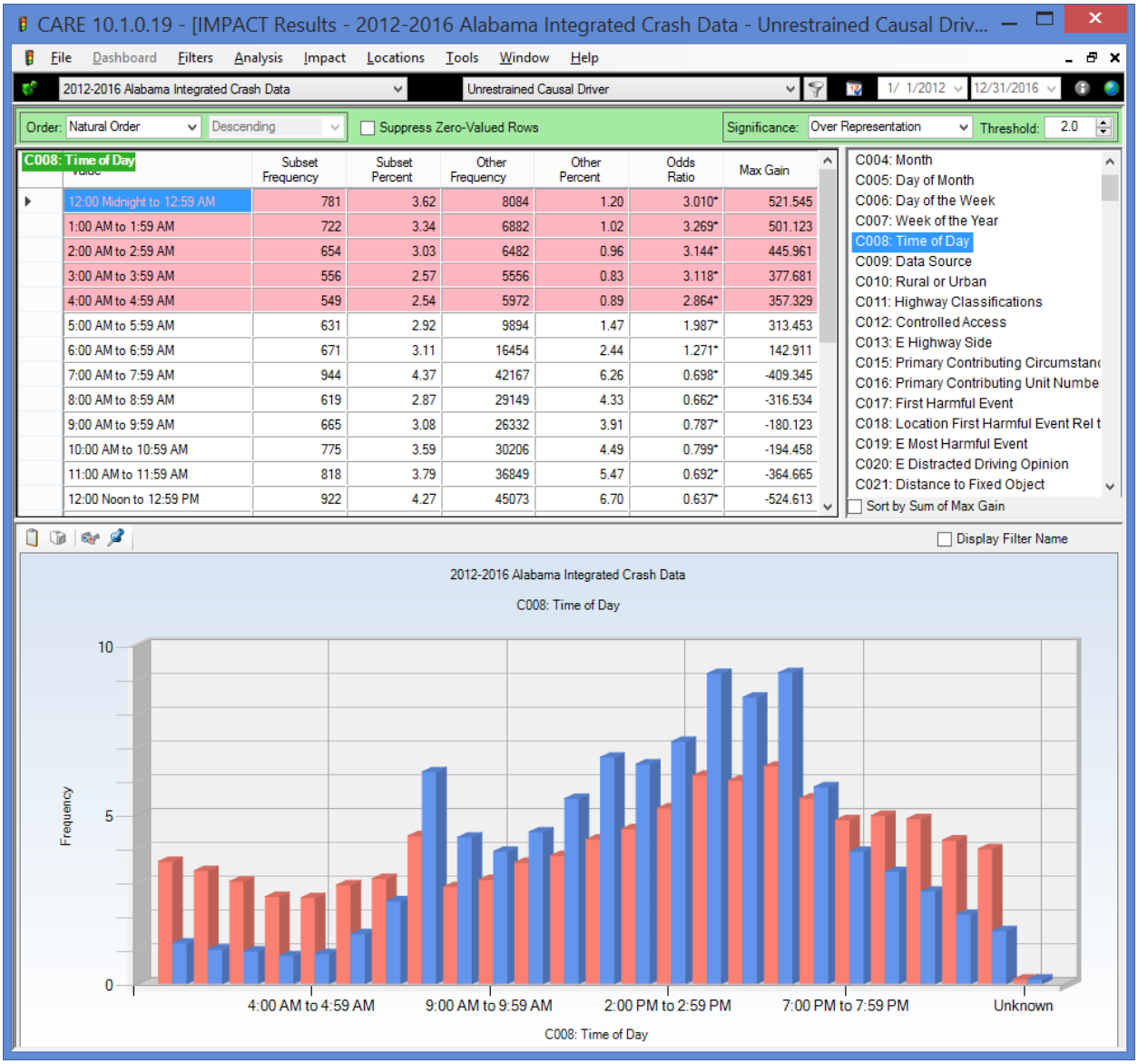
Time factors were also analyzed in several different categories to determine overrepresentation for day of the week and time of day. Analysis of these time factors allows for the determination of particular days of week and time of day combinations in which more crashes occur with drivers who are not properly restrained, and thus, those times in which enforcement would be more impactful.

8.9.3.1 Day of the Week



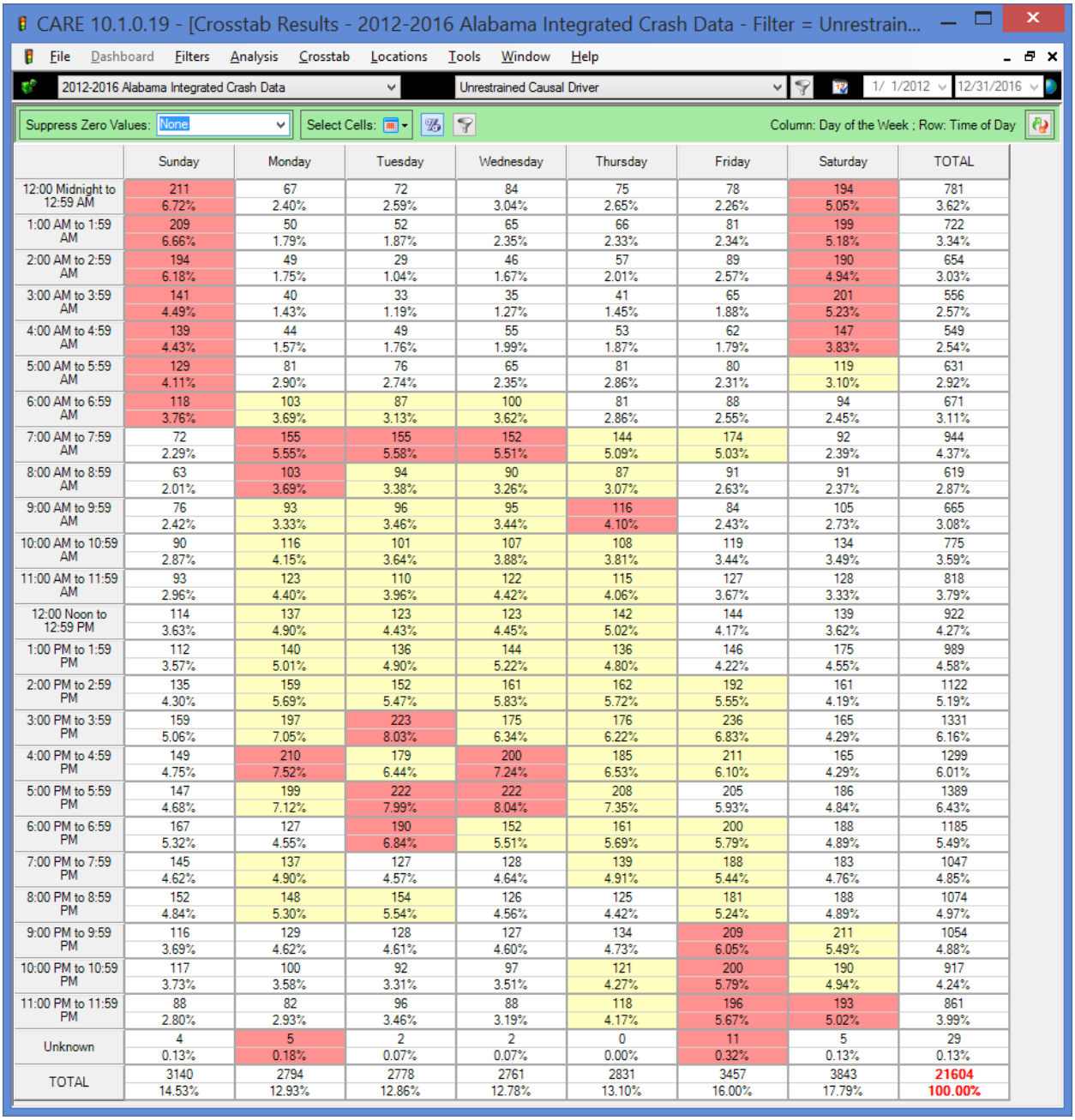
The weekend is overrepresented for crashes involving causal drivers who failed to use restraints, demonstrating a heavy correlation with alcohol-involved crashes. Saturday and Sunday averaged out to about 1.5 times the expected number of crashes involving causal drivers who failed to use restraints.

8.9.3.2 Time of Day



The relative probability of crashes involving no restraints is generally greater before and after standard work and rush hours. Overrepresentation peaks during the 12 PM to 5 AM period and then tapers off, falling back below crashes involving causal drivers who use restraints in the 7 AM to 8 AM time period. This chart has a very strong resemblance to its DUI counterpart and the fatality study completed for 2016 showed clearly the lack of restraints correlated heavily with DUI (alcohol or other drugs).

8.9.3.3 Time of Day by Day of the Week for all Unstrained Causal Driver Crashes



CARE 10.1.0.19 - [Crosstab Results - 2012-2016 Alabama Integrated Crash Data - Filter = Unrestrain...

File Dashboard Filters Analysis Crosstab Locations Tools Window Help

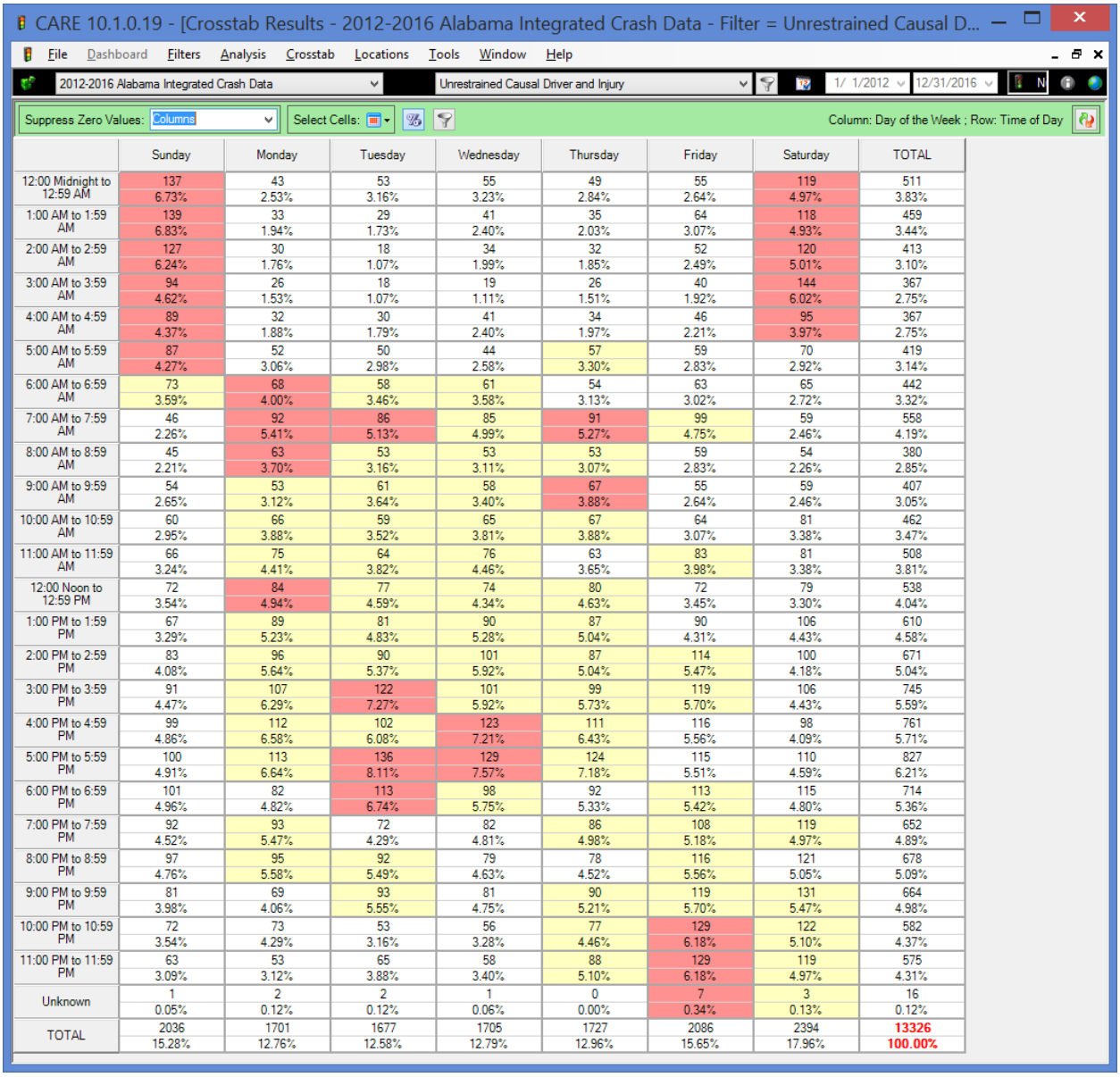
2012-2016 Alabama Integrated Crash Data | Unrestrained Causal Driver | 1/ 1/2012 | 12/31/2016

Suppress Zero Values: None | Select Cells: | Column: Day of the Week ; Row: Time of Day

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	TOTAL
12:00 Midnight to 12:59 AM	211 6.72%	67 2.40%	72 2.59%	84 3.04%	75 2.65%	78 2.26%	194 5.05%	781 3.62%
1:00 AM to 1:59 AM	209 6.66%	50 1.79%	52 1.87%	65 2.35%	66 2.33%	81 2.34%	199 5.18%	722 3.34%
2:00 AM to 2:59 AM	194 6.18%	49 1.75%	29 1.04%	46 1.67%	57 2.01%	89 2.57%	190 4.94%	654 3.03%
3:00 AM to 3:59 AM	141 4.49%	40 1.43%	33 1.19%	35 1.27%	41 1.45%	65 1.88%	201 5.23%	556 2.57%
4:00 AM to 4:59 AM	139 4.43%	44 1.57%	49 1.76%	55 1.99%	53 1.87%	62 1.79%	147 3.83%	549 2.54%
5:00 AM to 5:59 AM	129 4.11%	81 2.90%	76 2.74%	65 2.35%	81 2.86%	80 2.31%	119 3.10%	631 2.92%
6:00 AM to 6:59 AM	118 3.76%	103 3.69%	87 3.13%	100 3.62%	81 2.86%	88 2.55%	94 2.45%	671 3.11%
7:00 AM to 7:59 AM	72 2.29%	155 5.55%	155 5.58%	152 5.51%	144 5.09%	174 5.03%	92 2.39%	944 4.37%
8:00 AM to 8:59 AM	63 2.01%	103 3.69%	94 3.38%	90 3.26%	87 3.07%	91 2.63%	91 2.37%	619 2.87%
9:00 AM to 9:59 AM	76 2.42%	93 3.33%	96 3.46%	95 3.44%	116 4.10%	84 2.43%	105 2.73%	665 3.08%
10:00 AM to 10:59 AM	90 2.87%	116 4.15%	101 3.64%	107 3.88%	108 3.81%	119 3.44%	134 3.49%	775 3.59%
11:00 AM to 11:59 AM	93 2.96%	123 4.40%	110 3.96%	122 4.42%	115 4.06%	127 3.67%	128 3.33%	818 3.79%
12:00 Noon to 12:59 PM	114 3.63%	137 4.90%	123 4.43%	123 4.45%	142 5.02%	144 4.17%	139 3.62%	922 4.27%
1:00 PM to 1:59 PM	112 3.57%	140 5.01%	136 4.90%	144 5.22%	136 4.80%	146 4.22%	175 4.55%	989 4.58%
2:00 PM to 2:59 PM	135 4.30%	159 5.69%	152 5.47%	161 5.83%	162 5.72%	192 5.55%	161 4.19%	1122 5.19%
3:00 PM to 3:59 PM	159 5.06%	197 7.05%	223 8.03%	175 6.34%	176 6.22%	236 6.83%	165 4.29%	1331 6.16%
4:00 PM to 4:59 PM	149 4.75%	210 7.52%	179 6.44%	200 7.24%	185 6.53%	211 6.10%	165 4.29%	1299 6.01%
5:00 PM to 5:59 PM	147 4.68%	199 7.12%	222 7.99%	222 8.04%	208 7.35%	205 5.93%	186 4.84%	1389 6.43%
6:00 PM to 6:59 PM	167 5.32%	127 4.55%	190 6.84%	152 5.51%	161 5.69%	200 5.79%	188 4.89%	1185 5.49%
7:00 PM to 7:59 PM	145 4.62%	137 4.90%	127 4.57%	128 4.64%	139 4.91%	188 5.44%	183 4.76%	1047 4.85%
8:00 PM to 8:59 PM	152 4.84%	148 5.30%	154 5.54%	126 4.56%	125 4.42%	181 5.24%	188 4.89%	1074 4.97%
9:00 PM to 9:59 PM	116 3.69%	129 4.62%	128 4.61%	127 4.60%	134 4.73%	209 6.05%	211 5.49%	1054 4.88%
10:00 PM to 10:59 PM	117 3.73%	100 3.58%	92 3.31%	97 3.51%	121 4.27%	200 5.79%	190 4.94%	917 4.24%
11:00 PM to 11:59 PM	88 2.80%	82 2.93%	96 3.46%	88 3.19%	118 4.17%	196 5.67%	193 5.02%	861 3.99%
Unknown	4 0.13%	5 0.18%	2 0.07%	2 0.07%	0 0.00%	11 0.32%	5 0.13%	29 0.13%
TOTAL	3140 14.53%	2794 12.93%	2778 12.86%	2761 12.78%	2831 13.10%	3457 16.00%	3843 17.79%	21604 100.00%

The over-represented times for improperly restrained drivers is almost a perfect correlation with DUI (alcohol or other drugs). The correlation with age and DUI is also extremely high. If seat-belts are going to expand in their life-saving capabilities, some way will have to be found to get the impaired drivers to buckle up. In the past there has been a tendency to give up on these drivers, and this is the result.

8.9.3.4 Time of Day by Day of the Week: INJURY Unstrained Causal Driver Crashes



CARE 10.1.0.19 - [Crosstab Results - 2012-2016 Alabama Integrated Crash Data - Filter = Unrestrained Causal D...

File Dashboard Filters Analysis Crosstab Locations Tools Window Help

2012-2016 Alabama Integrated Crash Data | Unrestrained Causal Driver and Injury | 1/ 1/2012 | 12/31/2016

Suppress Zero Values: Columns | Select Cells: | Column: Day of the Week ; Row: Time of Day

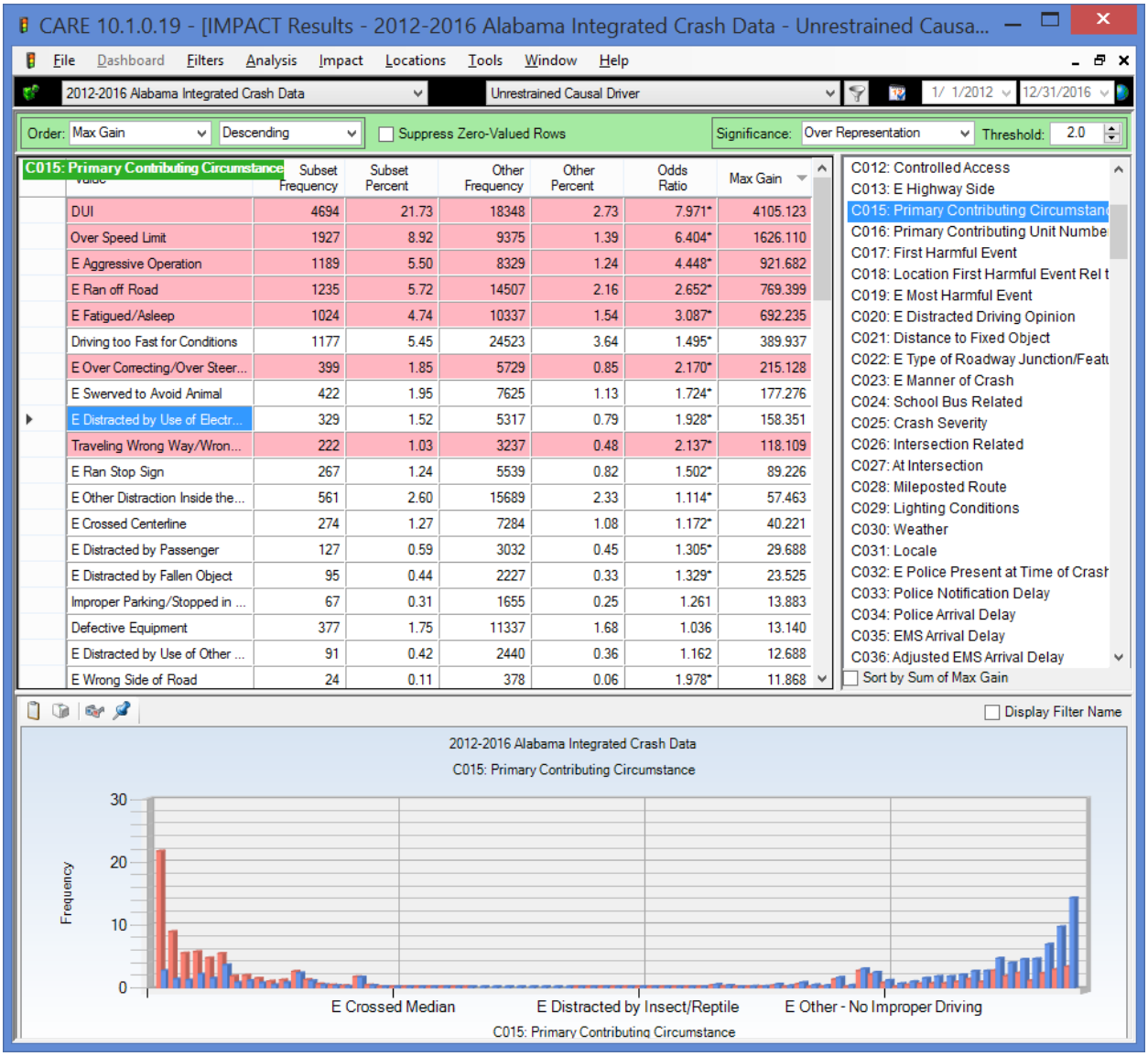
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	TOTAL
12:00 Midnight to 12:59 AM	137 6.73%	43 2.53%	53 3.16%	55 3.23%	49 2.84%	55 2.64%	119 4.97%	511 3.83%
1:00 AM to 1:59 AM	139 6.83%	33 1.94%	29 1.73%	41 2.40%	35 2.03%	64 3.07%	118 4.93%	459 3.44%
2:00 AM to 2:59 AM	127 6.24%	30 1.76%	18 1.07%	34 1.99%	32 1.85%	52 2.49%	120 5.01%	413 3.10%
3:00 AM to 3:59 AM	94 4.62%	26 1.53%	18 1.07%	19 1.11%	26 1.51%	40 1.92%	144 6.02%	367 2.75%
4:00 AM to 4:59 AM	89 4.37%	32 1.88%	30 1.79%	41 2.40%	34 1.97%	46 2.21%	95 3.97%	367 2.75%
5:00 AM to 5:59 AM	87 4.27%	52 3.06%	50 2.98%	44 2.58%	57 3.30%	59 2.83%	70 2.92%	419 3.14%
6:00 AM to 6:59 AM	73 3.59%	68 4.00%	58 3.46%	61 3.58%	54 3.13%	63 3.02%	65 2.72%	442 3.32%
7:00 AM to 7:59 AM	46 2.26%	92 5.41%	86 5.13%	85 4.99%	91 5.27%	99 4.75%	59 2.46%	558 4.19%
8:00 AM to 8:59 AM	45 2.21%	63 3.70%	53 3.16%	53 3.11%	53 3.07%	59 2.83%	54 2.26%	380 2.85%
9:00 AM to 9:59 AM	54 2.65%	53 3.12%	61 3.64%	58 3.40%	67 3.88%	55 2.64%	59 2.46%	407 3.05%
10:00 AM to 10:59 AM	60 2.95%	66 3.88%	59 3.52%	65 3.81%	67 3.88%	64 3.07%	81 3.38%	462 3.47%
11:00 AM to 11:59 AM	66 3.24%	75 4.41%	64 3.82%	76 4.46%	63 3.65%	83 3.98%	81 3.38%	508 3.81%
12:00 Noon to 12:59 PM	72 3.54%	84 4.94%	77 4.59%	74 4.34%	80 4.63%	72 3.45%	79 3.30%	538 4.04%
1:00 PM to 1:59 PM	67 3.29%	89 5.23%	81 4.83%	90 5.28%	87 5.04%	90 4.31%	106 4.43%	610 4.58%
2:00 PM to 2:59 PM	83 4.08%	96 5.64%	90 5.37%	101 5.92%	87 5.04%	114 5.47%	100 4.18%	671 5.04%
3:00 PM to 3:59 PM	91 4.47%	107 6.29%	122 7.27%	101 5.92%	99 5.73%	119 5.70%	106 4.43%	745 5.59%
4:00 PM to 4:59 PM	99 4.86%	112 6.58%	102 6.08%	123 7.21%	111 6.43%	116 5.56%	98 4.09%	761 5.71%
5:00 PM to 5:59 PM	100 4.91%	113 6.64%	136 8.11%	129 7.57%	124 7.18%	115 5.51%	110 4.59%	827 6.21%
6:00 PM to 6:59 PM	101 4.96%	82 4.82%	113 6.74%	98 5.75%	92 5.33%	113 5.42%	115 4.80%	714 5.36%
7:00 PM to 7:59 PM	92 4.52%	93 5.47%	72 4.29%	82 4.81%	86 4.98%	108 5.18%	119 4.97%	652 4.89%
8:00 PM to 8:59 PM	97 4.76%	95 5.58%	92 5.49%	79 4.63%	78 4.52%	116 5.56%	121 5.05%	678 5.09%
9:00 PM to 9:59 PM	81 3.98%	69 4.06%	93 5.55%	81 4.75%	90 5.21%	119 5.70%	131 5.47%	664 4.98%
10:00 PM to 10:59 PM	72 3.54%	73 4.29%	53 3.16%	56 3.28%	77 4.46%	129 6.18%	122 5.10%	582 4.37%
11:00 PM to 11:59 PM	63 3.09%	53 3.12%	65 3.88%	58 3.40%	88 5.10%	129 6.18%	119 4.97%	575 4.31%
Unknown	1 0.05%	2 0.12%	2 0.12%	1 0.06%	0 0.00%	7 0.34%	3 0.13%	16 0.12%
TOTAL	2036 15.28%	1701 12.76%	1677 12.58%	1705 12.79%	1727 12.96%	2086 15.65%	2394 17.96%	13326 100.00%

Crosstab analysis of time of day by day of the week for crashes involving injury in which restraints were not used helps target specific times in which officers should increase patrols in order to prevent these crashes. The above applies to all injury crashes in which the causal driver was not properly restrained.

8.9.4 Crash Causal Factors

Analysis of crash causal factors determines which factors are the most likely contributors to crashes in which drivers did not use restraints. The primary contributing circumstances of the crashes were analyzed, and overrepresentation values indicate certain risk-taking behaviors associated with this type of crash. Vehicle model year and speed at impact were also evaluated to characterize factors that are consistently associated with crashes in which drivers are not properly restrained.

8.9.4.1 Primary Contributing Circumstance

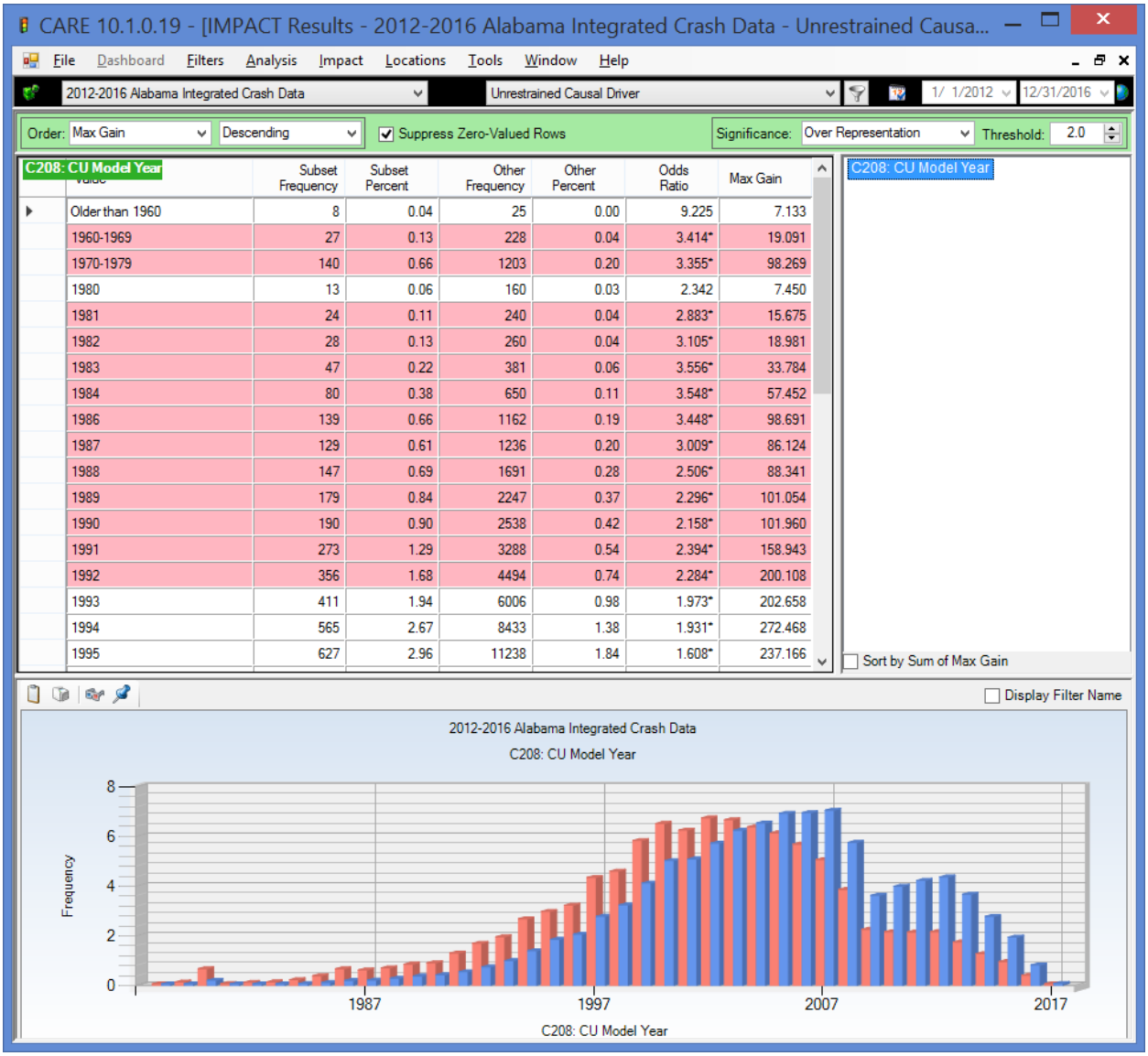


Overrepresentation factors indicate that certain risk-taking behaviors are associated with the crashes in which drivers do not use restraints. In order of maximum potential expected gain (Max Gain), these include: DUI, over the speed limit (ranked even higher when combined with

"Driving too Fast for Conditions"), aggressive operation, running off the road and fatigued/asleep. DUI for non-restrained drivers was determined to be about eight times the proportion that it was for restrained drivers, further reinforcing the findings with regard to impaired driving given above. Other overrepresented contributing circumstances include several things that are correlated with impairment: over correcting, swerving, traveling the wrong way, and the collection of all failure to yield categories. Distracted driving is also an issue with the proportion of unrestrained drivers being almost double that of those properly restrained.

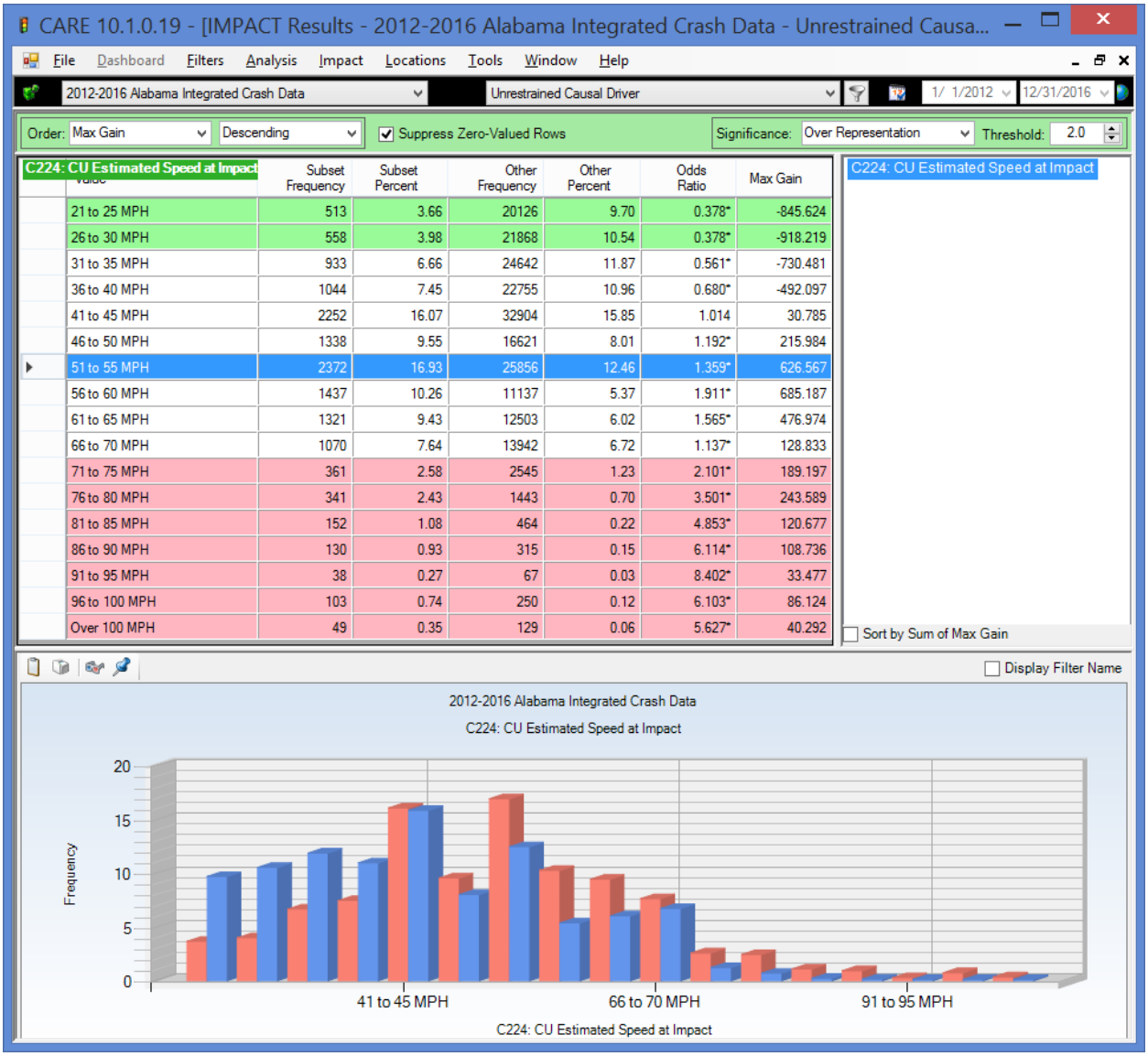
It is obvious that the presence of seat belts will not have a large impact on the causation of these crashes, although the increased ability to maintain control in adverse situations should not be minimized as a benefit of restraints. However, the correlation here would be the result of risk acceptance in general, and the inability or unwillingness of those who are impaired to consider the life-saving benefits of restraint use. Additionally, analysis of other contributing circumstances presented similar risk-taking behaviors associated with crashes in which causal drivers did not use restraints.

8.9.4.2 Vehicle Age – Model Year



Crashes attributed to drivers who used no restraints are greatly overrepresented in vehicles with model years 1960-2003. This might be attributed to the lack of current safety restraints in the older model vehicles. Vehicles with model years 2004 and later indicate that the proportion involving restraints surpasses those involving drivers who did not use restraints very significantly. One factor that would increase the rural problem could well be the economic disadvantages of those in the rural areas, and thus their use of older vehicles.

8.9.4.3 Speed at Impact

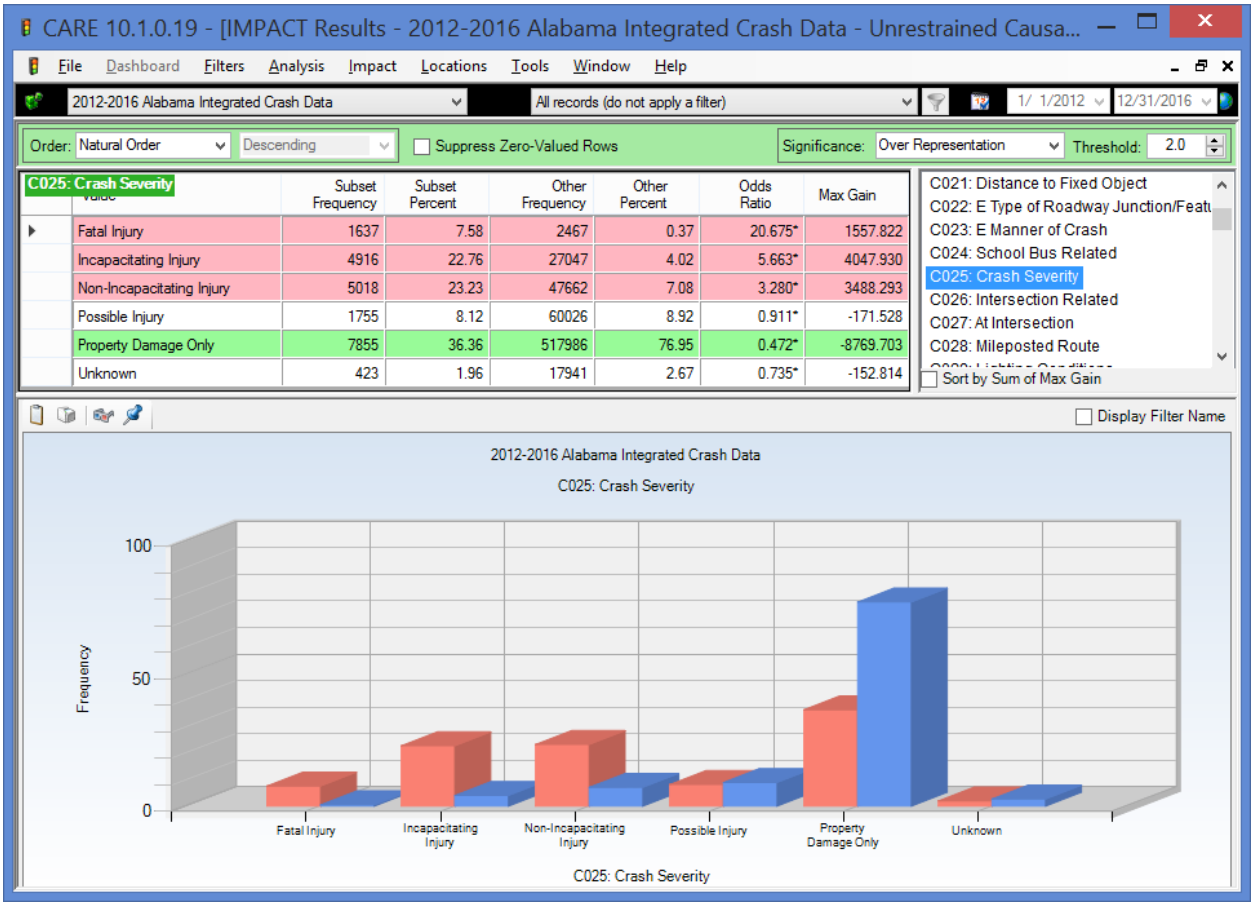


Speed at impact for crashes in which drivers failed to use restraints is most highly overrepresented in the range of 71 MPH and over. This is a major change from the previous year's observation where the mid-speed ranges, 51-65 MPH, were also highly over-represented. This is consistent with the findings of the recent fatality study that indicated speeds increasing overall by several crash and citation metrics. Crashes in which restraints are not used consistently occur at higher speeds than crashes in which restraints were used by the causal driver. This confirms the rural-urban finding, in that speeds are generally higher in the rural areas, and since speed is an excellent proxy for risk-taking, shows the correlation between improper restraints and other risk-taking items. It also exacerbates the problem, resulting in greater severity caused by the high-speed, unrestrained situations. Severity factors are considered immediately below.

8.9.5 Severity Factors

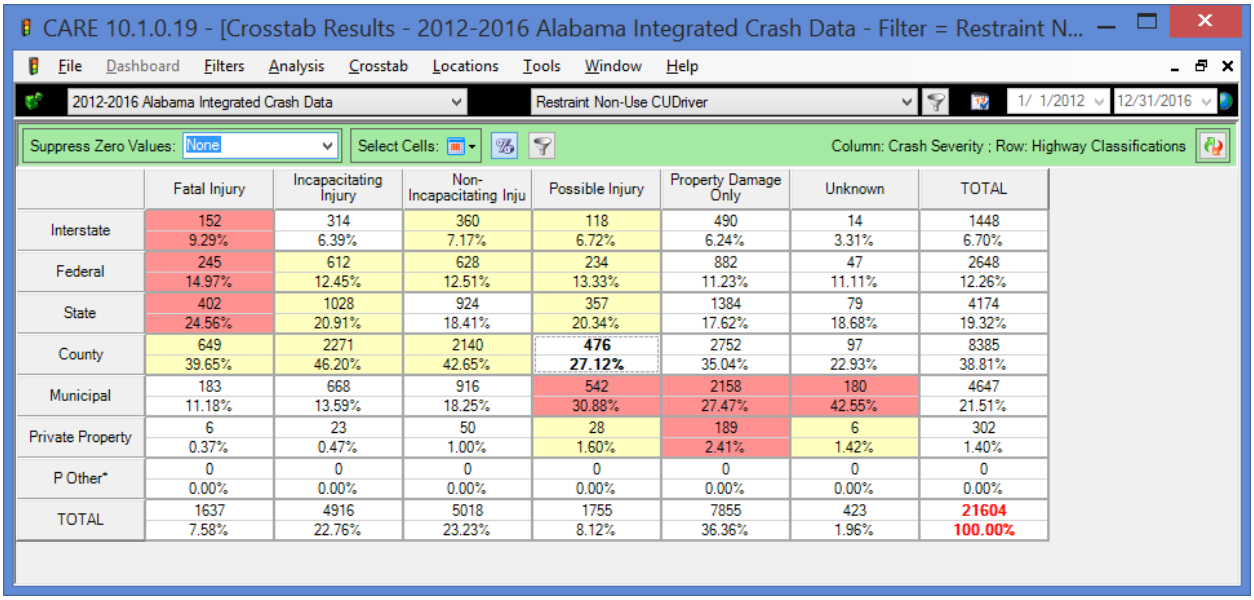
Generally restraints do not prevent crashes, although on rare occasions they might help to keep the driver behind the wheel and in a position to avoid a crash. But in general occupant restraints serve to reduce the severity of crashes when they occur. Severity factors were analyzed in several different categories to determine to what extent the use of restraints affects the safety of the drivers. These factors analyzed include crash severity, crash severity in urban versus rural areas, number injured, number killed, driver ejection status, and driver injury type.

8.9.5.1 Crash Severity



Fatal, incapacitating, and non-incapacitating injuries are all extremely overrepresented in crashes that occurred without the use of restraints, as given by the Odds Ratios that show the proportions of fatal, Incapacitation Injury and Non-incapacitating injury were about 21, 6 and 3 times expected, respectively. While overrepresentations were certainly expected, these results further quantify the effects of the benefits of restraint use. Property damage only was far more common in crashes in which drivers employed the use of restraints.

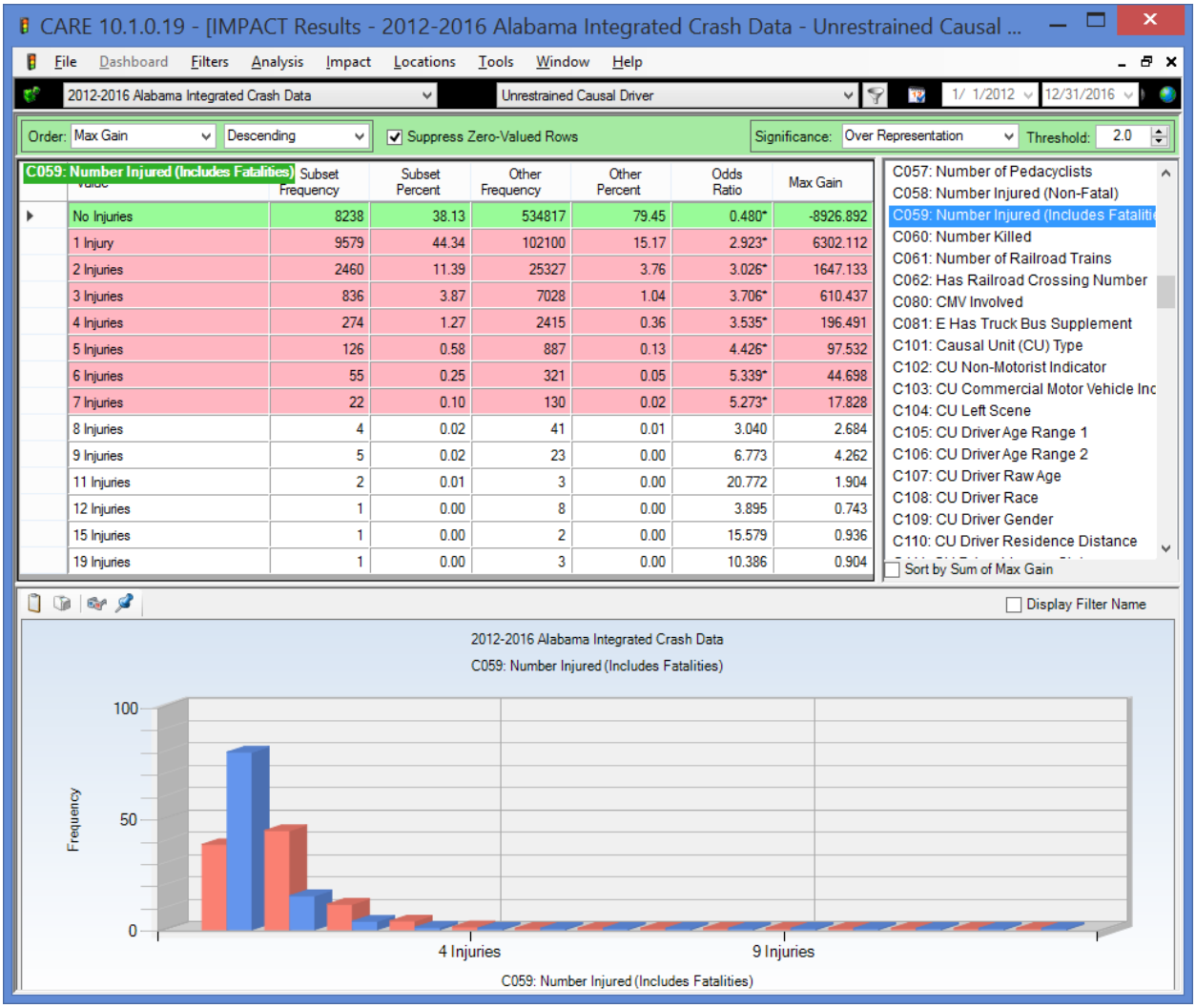
8.9.5.2 Crash Severity by Highway Classification for Driver Not Restrained



	Fatal Injury	Incapacitating Injury	Non-Incapacitating Inju	Possible Injury	Property Damage Only	Unknown	TOTAL
Interstate	152 9.29%	314 6.39%	360 7.17%	118 6.72%	490 6.24%	14 3.31%	1448 6.70%
Federal	245 14.97%	612 12.45%	628 12.51%	234 13.33%	882 11.23%	47 11.11%	2648 12.26%
State	402 24.56%	1028 20.91%	924 18.41%	357 20.34%	1384 17.62%	79 18.68%	4174 19.32%
County	649 39.65%	2271 46.20%	2140 42.65%	**476** **27.12%**	2752 35.04%	97 22.93%	8385 38.81%
Municipal	183 11.18%	668 13.59%	916 18.25%	542 30.88%	2158 27.47%	180 42.55%	4647 21.51%
Private Property	6 0.37%	23 0.47%	50 1.00%	28 1.60%	189 2.41%	6 1.42%	302 1.40%
P Other*	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
TOTAL	1637 7.58%	4916 22.76%	5018 23.23%	1755 8.12%	7855 36.36%	423 1.96%	**21604** **100.00%**

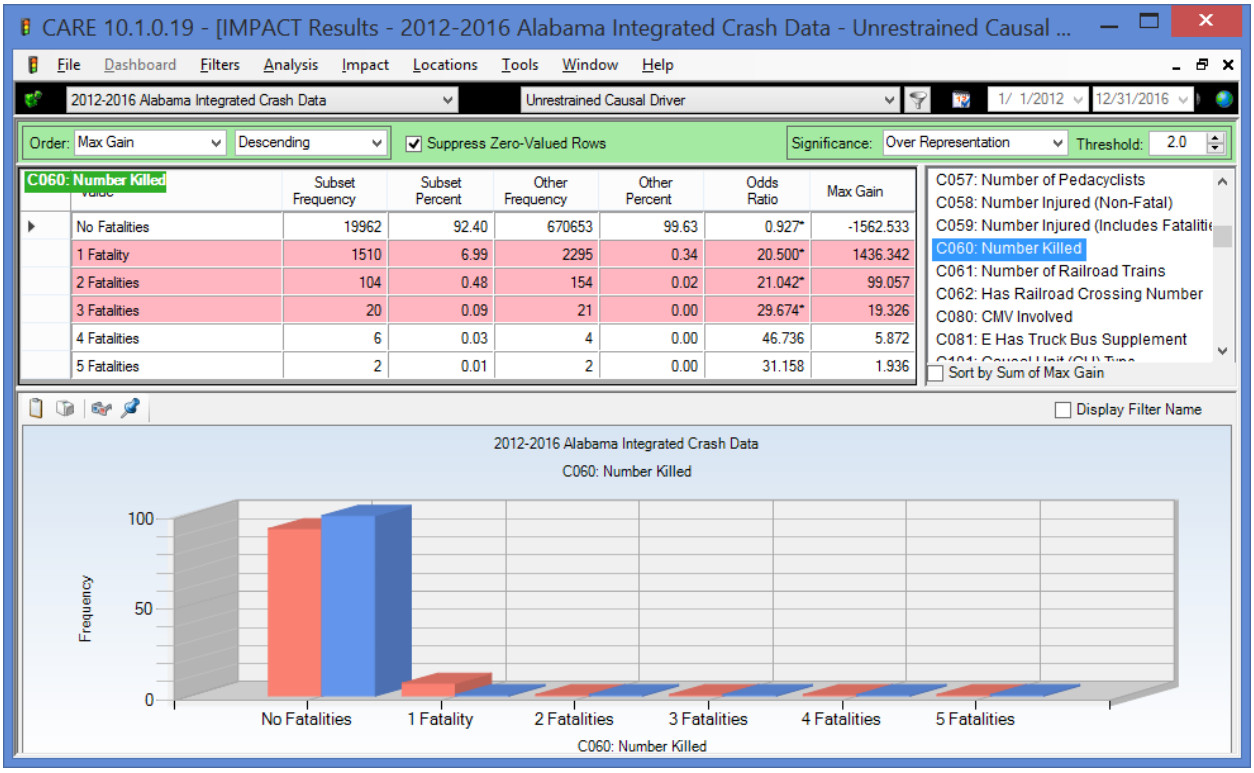
Analysis of crash severity by highway classification for crashes in which the causal driver did not use restraints shows that fatal injuries are overrepresented on Interstate, Federal and State roadways. Possible injuries and Property Damage Only were overrepresented on municipal highways.

8.9.5.3 Number Injured



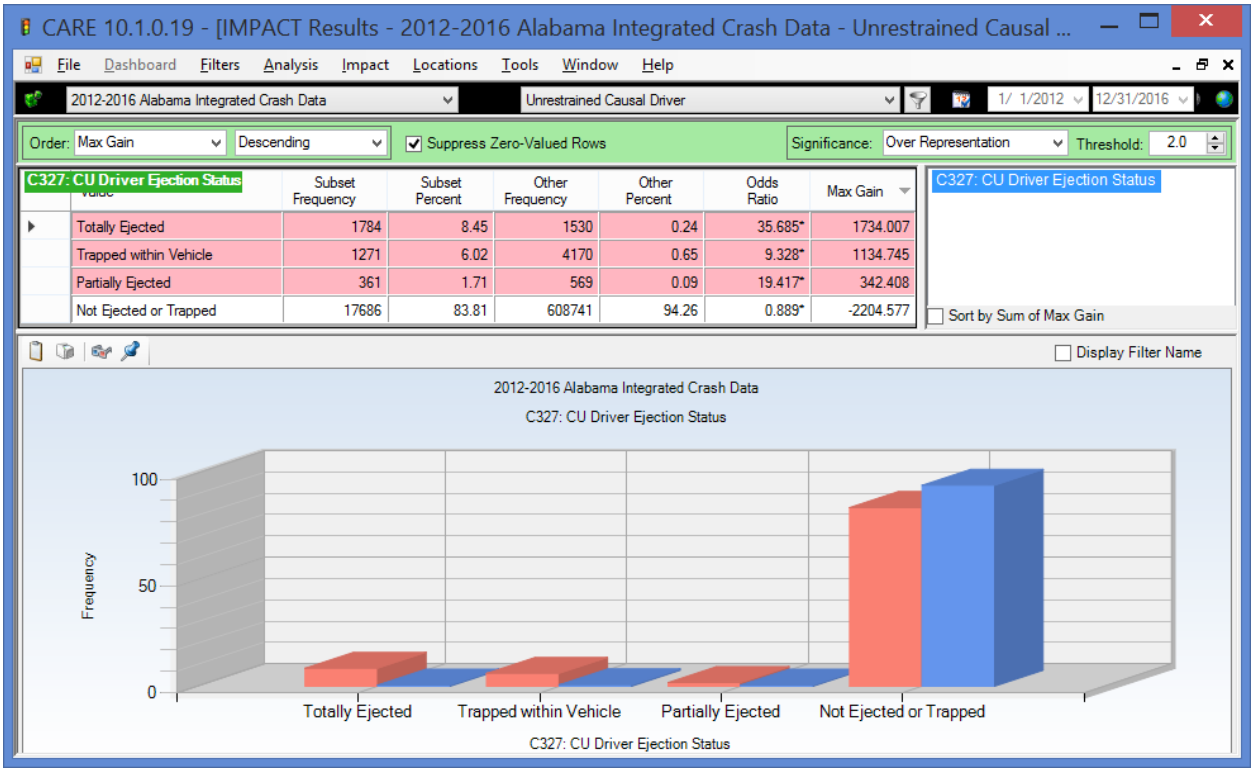
The proportion of injuries (including fatalities) in crashes in which no restraints were used is overrepresented by more than a factor of two when there were 1 to 7 injuries per crash. In the 6 and 5 injury crashes, it is over-represented by a factor of over 5. These results show quite plainly that crashes in which the causal driver was not restrained are much more severe in their effects to all passengers and not just the causal driver. The overrepresentation of multiple injuries in the causal vehicle might also indicate a tendency of unrestrained drivers to travel with multiple individuals in the vehicle. This also demonstrates that the use of a seat belt by the driver is an excellent proxy for seat belt use in general in the corresponding vehicle.

8.9.5.4 Number Killed



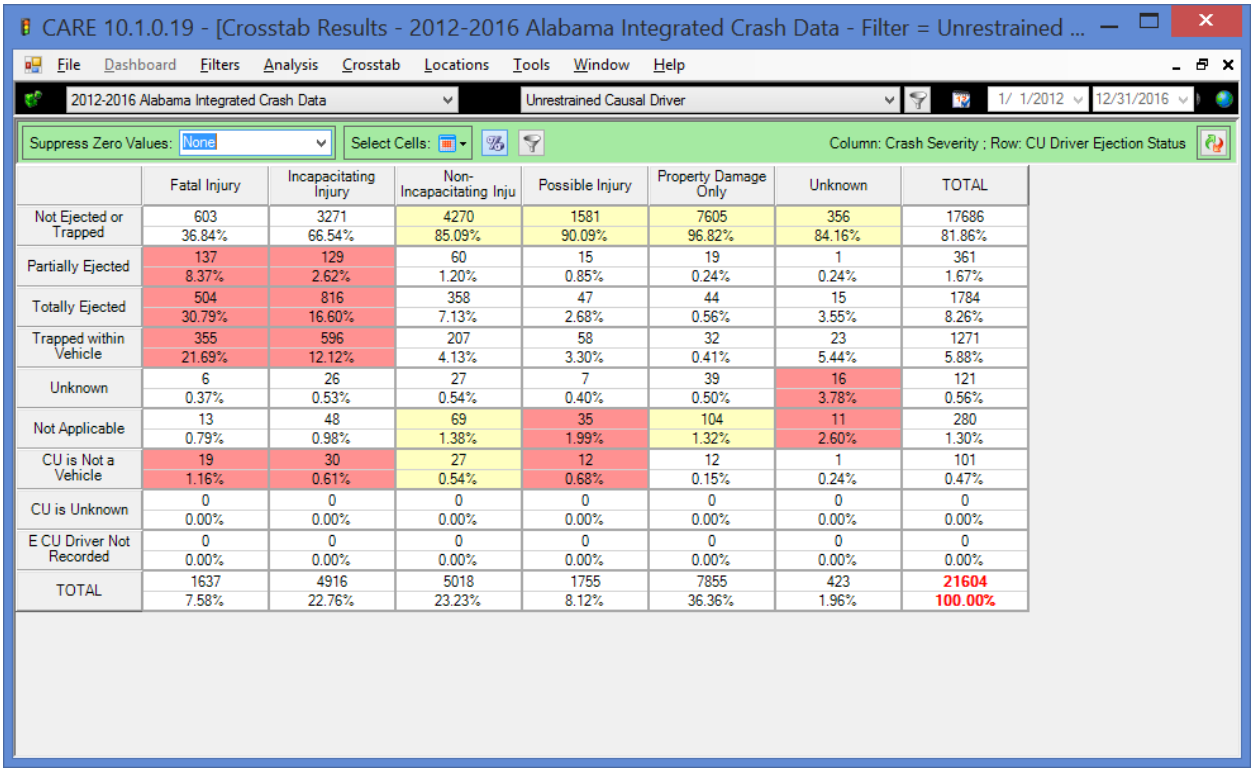
The proportion of fatalities in general as well as the proportion of multiple fatality crashes is dramatically overrepresented when restraints are not used in the causal vehicle. Multiple fatality crashes were found to be a large factor in the increase of fatalities in 2016. This was especially true in the 4 and 5 fatality crashes; 4 fatalities went from 3 to 6 in 2012-2016 from 2011-2015, and 5 fatalities doubled from 1 to 2. Of course, the largest increase was in the single fatality crashes, which went from 1423 in 2011-2015 to 1510 in the 2012-2016

8.9.5.5 Driver Ejection Status



Driver Totally Ejected is overrepresented by a factor of over 36 in crashes in which the driver did not use restraints, indicating another cause for many fatalities. This means that the probability of being ejected is 36 times higher when restraints are not used. Partial ejection, total ejection, or entrapments in the vehicle are also greatly over-represented, which is expected in crashes in which safety equipment is not properly utilized.

8.9.5.6 Ejection Status by Severity



	Fatal Injury	Incapacitating Injury	Non-Incapacitating Inju	Possible Injury	Property Damage Only	Unknown	TOTAL
Not Ejected or Trapped	603 36.84%	3271 66.54%	4270 85.09%	1581 90.09%	7605 96.82%	356 84.16%	17686 81.86%
Partially Ejected	137 8.37%	129 2.62%	60 1.20%	15 0.85%	19 0.24%	1 0.24%	361 1.67%
Totally Ejected	504 30.79%	816 16.60%	358 7.13%	47 2.68%	44 0.56%	15 3.55%	1784 8.26%
Trapped within Vehicle	355 21.69%	596 12.12%	207 4.13%	58 3.30%	32 0.41%	23 5.44%	1271 5.88%
Unknown	6 0.37%	26 0.53%	27 0.54%	7 0.40%	39 0.50%	16 3.78%	121 0.56%
Not Applicable	13 0.79%	48 0.98%	69 1.38%	35 1.99%	104 1.32%	11 2.60%	280 1.30%
CU is Not a Vehicle	19 1.16%	30 0.61%	27 0.54%	12 0.68%	12 0.15%	1 0.24%	101 0.47%
CU is Unknown	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
E CU Driver Not Recorded	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
TOTAL	1637 7.58%	4916 22.76%	5018 23.23%	1755 8.12%	7855 36.36%	423 1.96%	21604 100.00%

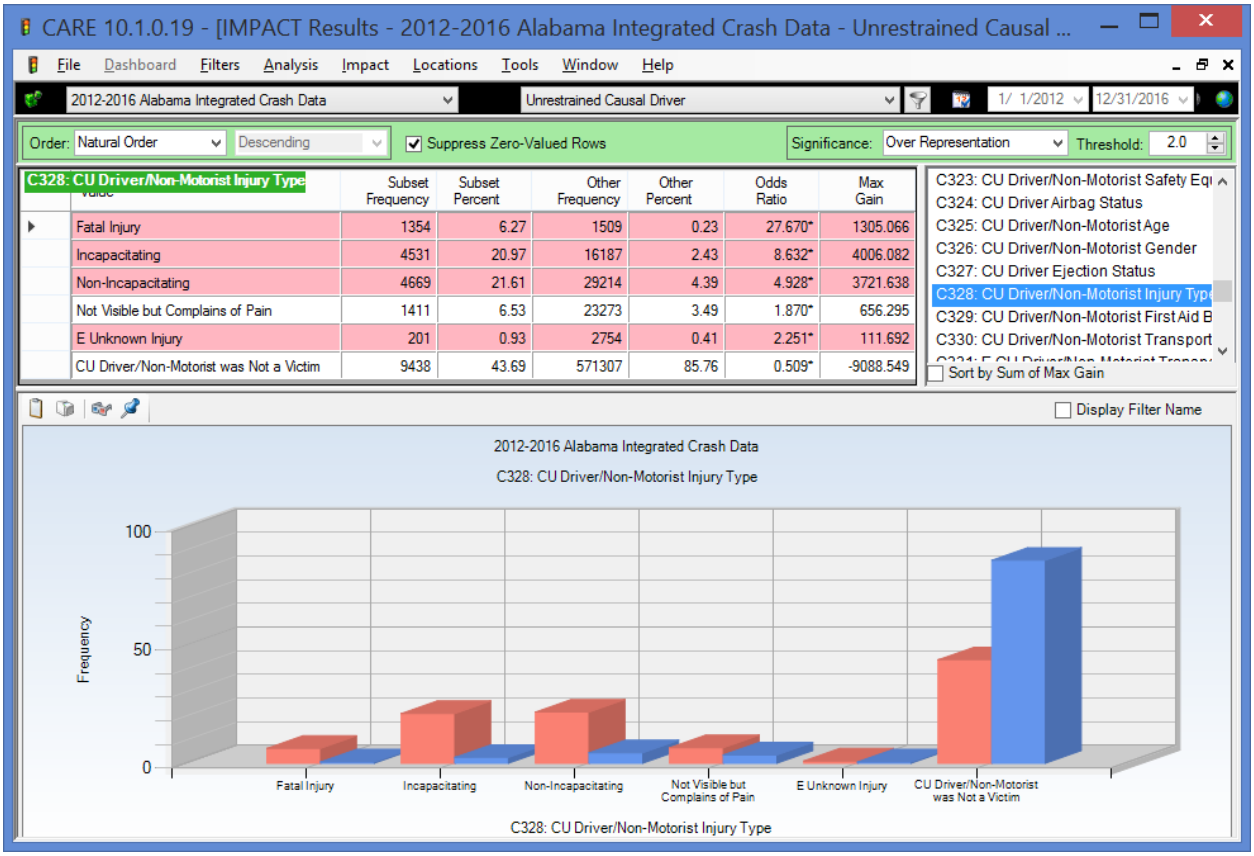
All crashes in the above cross-tabulation involved drivers who were not properly restrained. In evaluating crash severity by ejection status, data show that fatal and incapacitating injuries were significantly overrepresented in crashes in which the driver was partially ejected, totally ejected, or trapped within the vehicle. Because the ejection status is strongly associated with the use of restraints, this data indicates that failure to use restraints results in greater severity of injuries in crashes. The table given above quantifies this increase in severity. The probability of any given crash being fatal over the five years (2012-2016) of the study was 0.59% (including all crashes whether the driver/passengers were restrained or not). The following table give the multipliers to this probability (0.59%) of a crash being a fatal crash for the various ejection conditions.

Fatality Multipliers for Unrestrained Drivers

Ejection Status	Probability of Fatality	Multiplier from All Crashes
Not Ejected	3.40%	5.78
Partially Ejected	37.95%	64.32
Totally Ejected	28.25%	47.88
Trapped in Vehicle	27.93%	47.34

The non-ejection has a multiplier of 5.78 because it is being compared to all crashes, of which a large number (over 90% of passengers) are restrained. Partial ejection is the worst case scenario with a multiplier of over 64. For totally ejected or trapped causal vehicle drivers this is reduced to the 47-48 range, but is still dramatically worse than not being ejected even if unrestrained.

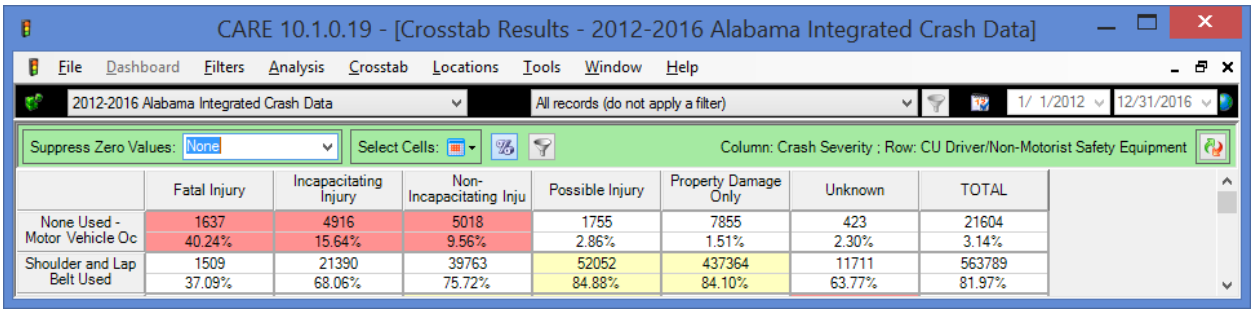
8.9.5.7 Driver Injury Type



Various types of driver injuries, including fatalities, are consistently overrepresented in crashes where no restraints were used by the driver. Fatalities in these crashes are overrepresented by a factor of over 27.670. In crashes in which safety restraints were used, drivers and non-motorists were far less likely to be injured.

8.9.5.8 Fatality Probability by Restraint Use

The following is for all crashes over the 2012-2016 time frame.



	Fatal Injury	Incapacitating Injury	Non-Incapacitating Inju	Possible Injury	Property Damage Only	Unknown	TOTAL
None Used - Motor Vehicle Oc	1637 40.24%	4916 15.64%	5018 9.56%	1755 2.86%	7855 1.51%	423 2.30%	21604 3.14%
Shoulder and Lap Belt Used	1509 37.09%	21390 68.06%	39763 75.72%	52052 84.88%	437364 84.10%	11711 63.77%	563789 81.97%

The probability that any given crash will be classified as a fatal crash is calculated by the number in any specific category divided by the total number in that general category. From the above, the probability of a fatality of those who are properly restrained is given by:

1509 Fatal Crashes / 563,789 Total Crashes = 0.002677 = 0.002677% (1 in every 374.62 crashes).

The same calculation for the None Used row is:

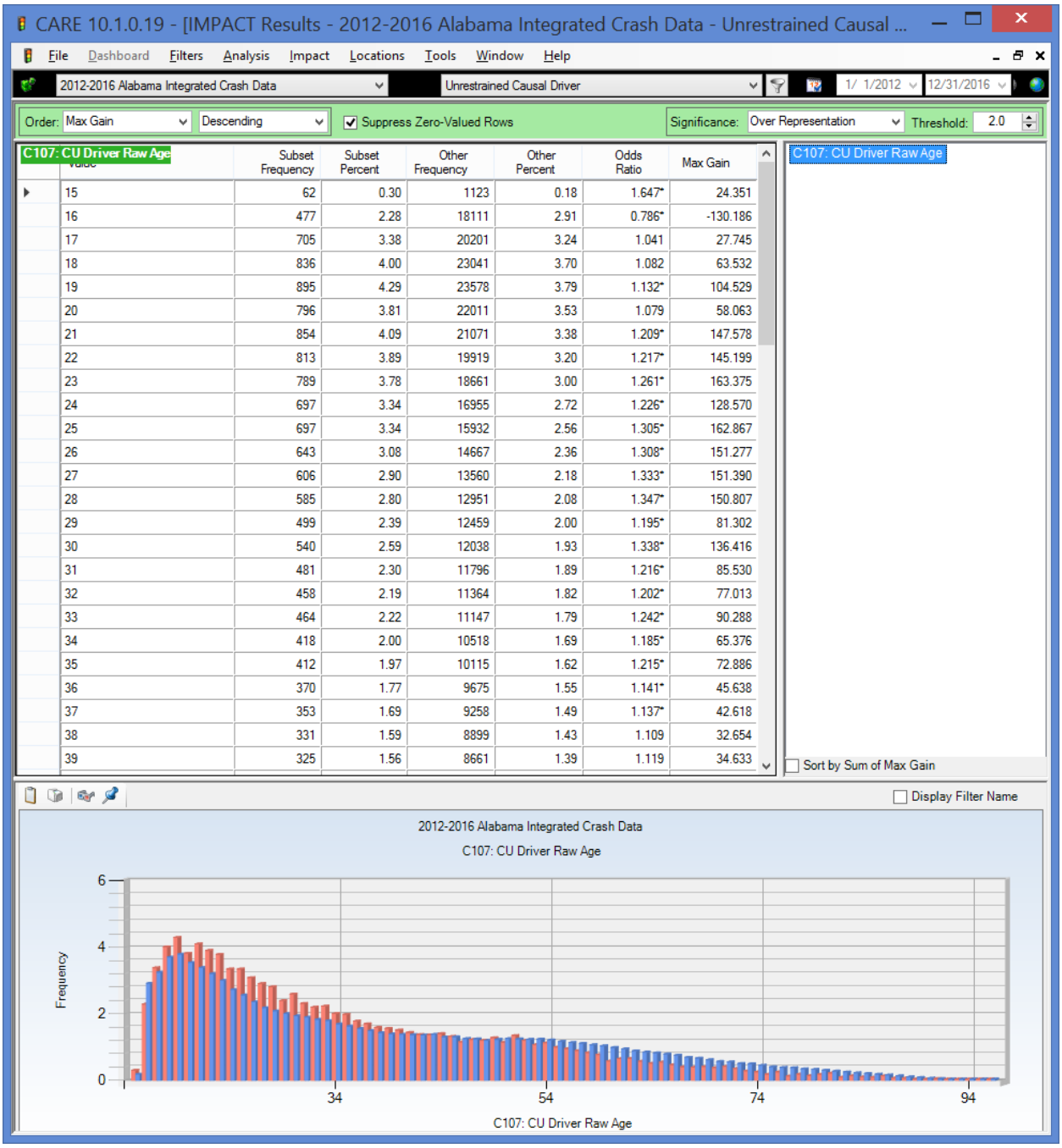
1637 Fatal Crashes / 21,604 Total Crashes = 0.075773 = 7.5773 (1 in every 13.20 crashes).

These figures show that the probability of being killed in a crash goes up by a factor of 374.62/13.20 = 28.3 times the probability of being killed given proper restraints.

8.9.6 Driver Demographics

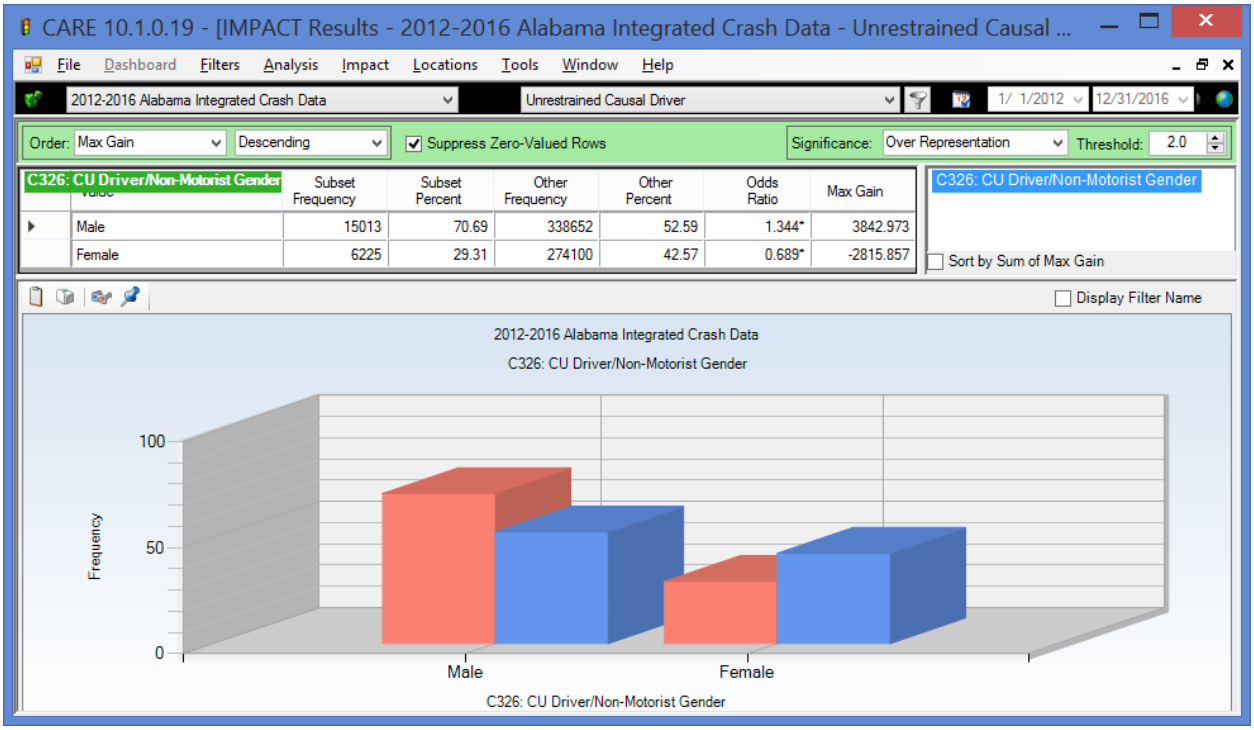
The study of driver demographics provides information about which gender or age groups are more likely to be involved in these crashes in which no restraints are used. Determination of overrepresentation can help to target the gender or age group that is more likely to be involved in this type of crash.

8.9.6.1 Driver Age



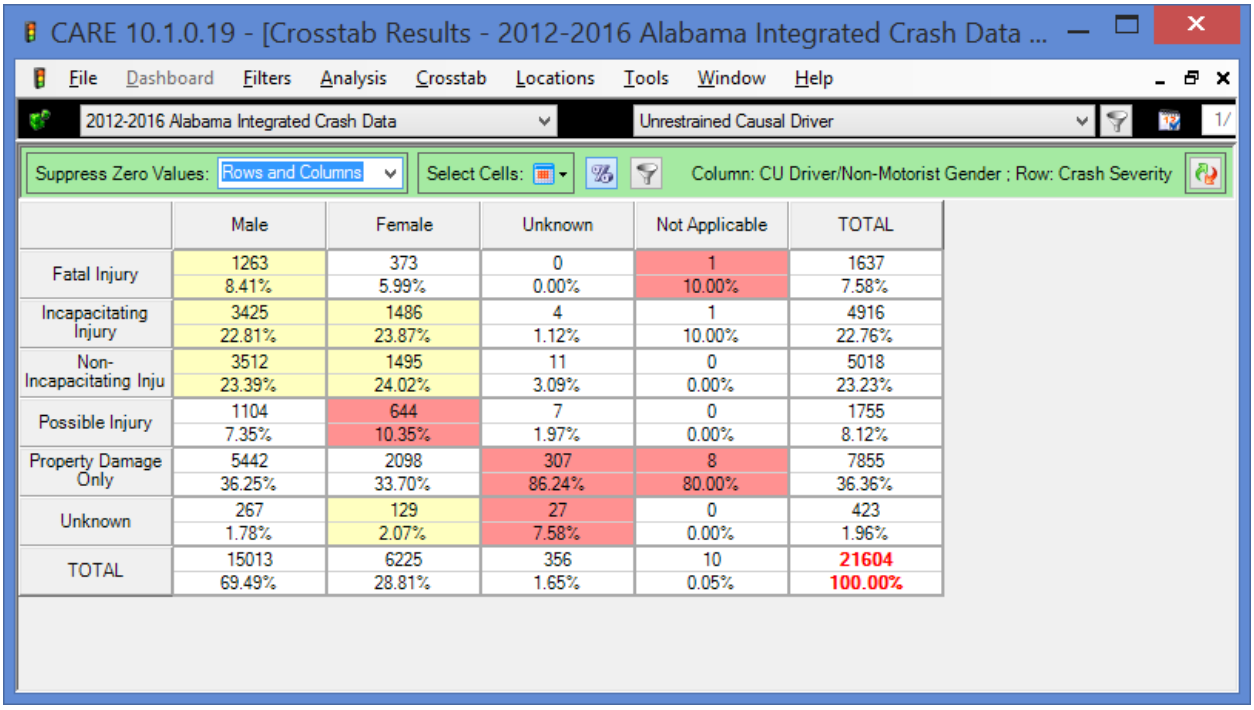
Analysis of individual driver ages indicates that crashes involving no restraints are overrepresented in the years above the teen-drivers (age range 19-37). While it appears that 16-18 teen-aged drivers are more likely to use safety equipment (perhaps due to the emphasis on it placed during training), there is still a very large proportion that are unrestrained, and this problem is multiplied by their overrepresentation in crashes in general (note that, for crashes in general, they are at least twice the average of the other ages). The tendency toward risk-taking is generally thought to end at age 25. This distribution correlates very strongly with crashes in which the causal driver was impaired by drugs (including alcohol).

8.9.6.2 Driver Gender



Males account for 70.69% of crashes in which restraints are not used, and they are overrepresented by a factor of 1.344. Since males also do the majority of the driving, they become a clear target for restraint countermeasures.

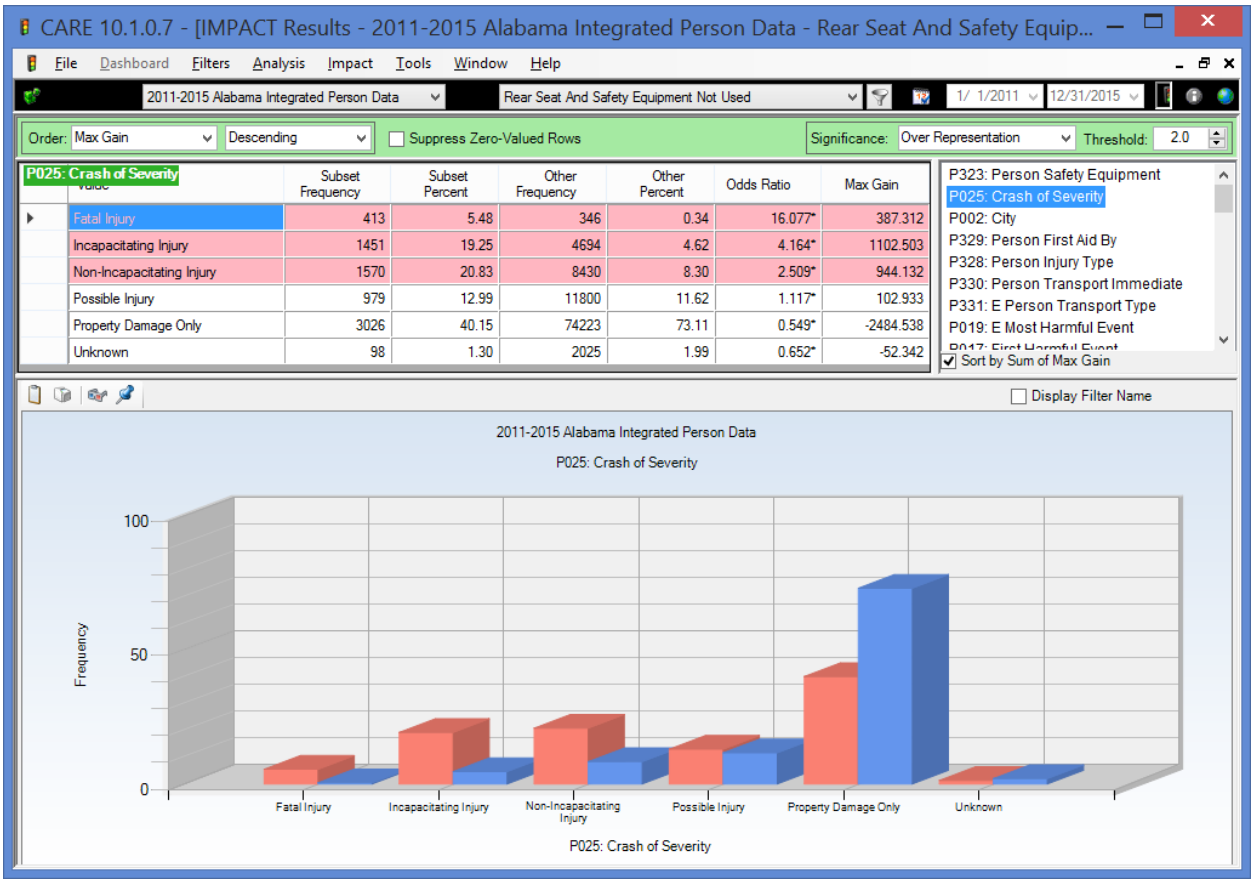
8.9.6.3 Driver Gender by Severity for Unrestrained Causal Drivers



	Male	Female	Unknown	Not Applicable	TOTAL
Fatal Injury	1263 8.41%	373 5.99%	0 0.00%	1 10.00%	1637 7.58%
Incapacitating Injury	3425 22.81%	1486 23.87%	4 1.12%	1 10.00%	4916 22.76%
Non-Incapacitating Inju	3512 23.39%	1495 24.02%	11 3.09%	0 0.00%	5018 23.23%
Possible Injury	1104 7.35%	644 10.35%	7 1.97%	0 0.00%	1755 8.12%
Property Damage Only	5442 36.25%	2098 33.70%	307 86.24%	8 80.00%	7855 36.36%
Unknown	267 1.78%	129 2.07%	27 7.58%	0 0.00%	423 1.96%
TOTAL	15013 69.49%	6225 28.81%	356 1.65%	10 0.05%	21604 100.00%

When driver gender by severity was studied, data indicate that “Possible Injuries” are overrepresented for female drivers in crashes where the female causal driver was not restrained. Generally, the distribution of severity is skewed toward more severe injuries for unrestrained male drivers. The probability that any of these (unrestrained driver) crashes resulted in a fatality was 8.41% for male drivers and 5.99% for female drivers.

8.9.7 Analysis of Back Seat Occupants



Back seat occupants who are not properly restrained have close to 17 times the probability of being killed as do those who are properly restrained. The other highest two severity classifications are also greatly increased, although not by as great of multipliers: 4.370 for Incapacitating Injury and 2.515 for Non-Incapacitating Injury.

Looking at the numbers, over the five year period, there were 423 back seat occupants killed, which is about 83 per year. Question: how many of these would have been saved had they been properly restrained? Applying the 0.34% (probability of being killed if restrained) to the total unrestrained (sum of the Subset Frequency column, which is 7,430) as opposed to the actual 5.69% yields 25.12 total fatalities. This means that the total fatality savings over the five years would have been 423-25=398 fatalities, the saving of about 80 lives per year.

8.9.8 Summary and Conclusions

The following summarizes the findings of the analysis:

- Geographical Factors
    - Counties with the greatest overrepresentation factors for unrestrained driver crashes include Walker, Cullman, Jackson, Talladega, DeKalb and Escambia.
    - The number of crashes involving drivers who use no restraints is greatly overrepresented in rural areas in comparison to the urban areas. The odds ratio for rural areas is well over twice what would be expected if rural and urban restraint use were the same.
    - The most overrepresented (worst) areas are the rural county areas in Walker, Mobile, Cullman, Talladega Counties.
    - The most underrepresented (best) cities are Birmingham, Mobile, Montgomery, Huntsville and Tuscaloosa.
    - Crash incidents with no driver restraints being used are greatly overrepresented on county highways, with 2.7 times the expected number of crashes. County and State were the only roadway classification that were overrepresented.
    - In the analysis of locale, crashes involving no restraints are most commonly overrepresented in open country areas.

- Time Factors
    - The weekend days are the most overrepresented days of the week for crashes in which drivers did not use restraints. This correlates highly with impaired driving crashes.
    - In the evaluation of time of day, overrepresentation peaks during the 12 Midnight to 5 AM period and then tapers off, falling back below crashes involving causal drivers who use restraints in the 7 AM to 7 PM time periods. Additional crosstabulations were performed for crashes involving injury.

- Analysis of Time of Day by Day of Week.
    - 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. Three analyses were performed and compared for three target groups: rural crashes, crashes caused by drivers 16-20, and crashes caused by drivers 21-25. While the rural and 21-25 crosstabs were expected to correlate very heavily with impaired driving, it was found that the 16-20 year old causal drivers were not very much different. It seems clear that while they might not be involved with alcohol or drugs, they are out and engaged in risk-taking practices at the same time as the impaired driving by their older driver counterparts, further compounding the problem at these

times. The drivers 16-20 would also reasonably be expected to be overrepresented in the week-day after school hours in the proximity of their schools and after-school activities.
    - The cross-tabulation of time of day by day of the week that was restricted to injury crashes only showed a very high resemblance to the same analysis for impaired driving (alcohol and other drugs involvement).

- Crash Causal Factors
    - The overrepresentation factors indicate that certain risk-taking behaviors are often associated with crashes in which restraints are not used, including DUI, over the speed limit, aggressive operation, running off the road, and fatigue/sleep.
    - Crashes attributed to drivers who used no restraints are greatly overrepresented in vehicles with model years 1960-2003, which could be attributed to the lack of standard safety restraints in some of these older model vehicles, or perhaps the removal of these safety devices over time.
    - The speed at impact for crashes for this type of crash is overrepresented in all of the categories above 40 MPH, indicating that these crashes consistently occur at higher speeds than crashes in which restraints were used by the causal driver.
- Severity Factors
    - Fatal, incapacitating, and non-incapacitating injuries are all overrepresented in crashes where drivers were not restrained; this analysis quantified the benefits of the restraint use.
    - Fatal injuries in crashes where no restraints are used are highly overrepresented on interstate, federal and state roadways. "Possible Injuries" were highly overrepresented on municipal highways.
    - Analysis of injuries shows that the proportion of injuries (including fatalities) in unrestrained driver crashes is overrepresented from 1 to 7 injuries per crash. Crashes without restraints are clearly causing much more severe injuries and a greater number of injuries and fatalities per crash.
    - The proportion of fatalities in general as well as the proportion of multiple fatality crashes is dramatically overrepresented in crashes where the causal driver is unrestrained.
    - As expected, ejection of the unrestrained driver is overrepresented, indicating one major cause for many fatalities in which safety equipment is not properly utilized.
    - All types of injuries, including fatalities, are consistently overrepresented in crashes where no restraints were used.

- Driver Demographics
    - Analysis of individual driver ages indicates that crashes involving no restraints are overrepresented in drivers in and immediately above the teen driver classification (age range 19-38).
    - Male drivers account for a majority of crashes in which restraints are not used, and they are overrepresented by a factor of 1.344.

- Ejection and Back Seat Analysis
    - The non-restrained person is about 50 times more likely to be ejected than those who are properly restrained.
    - If all back-seat occupants were properly restrained it would result in a saving of 80 lives per year.

9.0 – ALABAMA PERFORMANCE REPORT FOR FY 2016

9.1 Traffic Safety Performance Measures

C-1) Number of traffic fatalities (Fatality Analysis Reporting System (FARS))

2010	2011	2012	2013	2014	Baseline	Goal
862	895	865	852	820	858.8	857

Reduce total traffic fatalities by .24 percent from the five year baseline average of 859 (2010-2014) to 857 by 2017*. **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 (2011 to 2015) number of traffic fatalities for 2016 is 856. The goal was achieved.

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

2010	2011	2012	2013	2014	Baseline	Goal
10,544	9,904	8,974	8,558	7,960	9,188	8,900

Reduce serious injuries in traffic crashes by 3.13 percent from the five year baseline average of 9,188 (2010-2014) to 8,900 by 2017*. **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 (2011 to 2015) number of serious injuries in traffic crashes for 2015 is 8,619. The goal was achieved.

C-3) Fatalities/VMT (FARS/FHWA)

Total Fatalities/100M VMT

2010	2011	2012	2013	2014	Baseline	Goal
1.34	1.38	1.33	1.31	1.25	1.32	1.31

Reduce the fatality rate per 100M VMT by .75 percent from the five year baseline average of 1.32 (2010-2014) to 1.31 by 2017*. **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 (2011-2015) fatality rate for 2015 is 1.30. The goal was achieved.

Rural Fatalities/100M VMT

2010	2011	2012	2013	2014	Baseline	Goal
1.72	1.70	1.68	1.85	1.97	1.78	1.77

Reduce the rural fatality rate per 100M VMT by .56 percent from the five year baseline average of 1.78 (2010-2014) to 1.77 by 2017*. The five year average (2011to 2015) rural fatality rate for 2015 is 1.78. The goal was not achieved.

An analysis of rural fatality crashes was performed and age was found to be the most significant variable in comparing 2015 results with those of 2011-2014. Ages 17-20 showed dramatic increases from 10.45% of the crashes in 2011-2014 to 14.05% in 2015. The state will address this issue by increasing its FY2018 selective enforcement efforts in rural areas.

Urban Fatalities/100M VMT

2010	2011	2012	2013	2014	Baseline	Goal
0.97	1.09	0.99	0.82	0.72	0.92	.90

Reduce the urban fatality rate per 100M VMT by 2.17 percent from the five year baseline average of .92 (2010-2014) to .90 by 2017*. The five year average (2011-2015) urban fatality rate for 2015 is .85. The goal was achieved.

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

2010	2011	2012	2013	2014	Baseline	Goal
394	382	354	369	351	370	368

Reduce the unrestrained passenger vehicle occupant fatalities by .54 percent from the five year baseline average of 370 (2010-2014) to 368 by 2017*.
The five year average (2011 to 2015) number of unrestrained passenger vehicle occupant fatalities for 2016 is 362. The goal was achieved.

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

2010	2011	2012	2013	2014	Baseline	Goal
264	261	257	260	264	261	259

Reduce the alcohol-impaired driving fatalities by .77 percent from the five year baseline average of 261 (2010-2014) to 259 by 2017* The five year average

(2011 to 2015) number of driver or motorcycle operator with a BAC of .08 and above (FARS) for 2016 is 258. The goal was achieved.

C-6) Number of speeding-related fatalities (FARS)

2010	2011	2012	2013	2014	Baseline	Goal
316	298	273	253	237	275	270

Reduce the speeding-related fatalities by 1.8 percent from the five year baseline average of 275 (2010-2014) to 270 by 2017*. The five year average (2011 to 2015) number of speeding-related fatalities (FARS) for 2015 is 258. The goal was achieved.

C-7) Number of motorcyclist fatalities (FARS)

2010	2011	2012	2013	2014	Baseline	Goal
86	98	97	80	65	85	83

Reduce the motorcyclist fatalities by 2.3 percent from the five year baseline average of 85(2010-2014) to 83 by 2017*. The five year average (2011 to 2015) number of motorcyclist fatalities (FARS) for 2016 is 81. The goal was achieved.

C-8) Number of un-helmeted motorcyclist fatalities (FARS)

2010	2011	2012	2013	2014	Baseline	Goal
5	10	10	1	10	7.2	6

Reduce the un-helmeted motorcyclist fatalities by 14.3 percent from the five year baseline average of 7 (2010-2014) to 6 by 2017*. The five year average (2011 to 2015) number of un-helmeted motorcyclist fatalities (FARS) for 2016 is 8. The goal was not achieved.

An analysis of un-helmeted motorcycle fatalities was performed that compared the attributes of those in 2015 with those in 2011-2014. Age was the most over-represented relevant factor, and the results showed a move in the 38-62 age group from 57.84% in 2011-2014 to 75.00% in 2015. At the same time the drivers younger than 37 who were killed not wearing helmets dropped from 38.55% to only 25.00%.

Further analysis of the primary contributing circumstances involved in un-helmeted motorcyclist fatalities showed a significant portion of fatalities were caused by impaired driving, aggressive operation, and speeding. These three circumstances were accountable for almost half of all fatalities in the past five years. The FY2018 HSP addresses these causes in Alabama's STEP and Hot Spot Impaired Driving Enforcement campaign projects.

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

2010	2011	2012	2013	2014	Baseline	Goal
140	136	139	102	91	122	118

Reduce the number of drivers age 20 or younger involved in fatal crashes by 3.3 percent from the five year baseline average of 122 (2010-2014) to 118 by 2017*. The five year average (2011 to 2015) number of drivers age 20 or younger involved in fatal crashes (FARS) for 2016 is 122. The goal was not achieved.

A detailed analysis of crashes and fatal crashes involving drivers 20 or younger was performed. The main fact noticed was the overall increase of drivers in this age range for 2015. This correlates closely with the increasing employment rate for the same age range which indicates that more drivers in this age range will be involved in crashes overall as well as fatal crashes.

Further analysis of the primary contributing circumstance involved in drivers age 20 or younger involved in fatal crashes showed a significant portion of fatalities were caused by speeding, aggressive operation, and running off the road. These four circumstances were accountable for over half of all fatalities in the past five years. The FY2018 HSP addresses these causes in Alabama's STEP and Hot Spot Impaired Driving Enforcement campaign projects.

C-10) Number of pedestrian fatalities (FARS)

2010	2011	2012	2013	2014	Baseline	Goal
61	79	77	59	96	69	68

Reduce the number of pedestrian fatalities 1.4 percent from the five year baseline average of 69 (2010-2014) to 68 by 2017*. The five year average (2011 to 2015) number of pedestrian fatalities (FARS) for 2016 is 82. The goal was not achieved. An analysis of the pedestrian fatalities was performed. In the majority of cases, the pedestrian was at fault, not the driver. The fatalities were scattered throughout the state and not concentrated in one particular area. However, one notable increase occurred with pedestrian and alcohol use. The officer's opinion of alcohol for the pedestrian increased for an average of 10.3% (2011-2014) to 14.7% for fatal pedestrian crashes in 2015.

After this analysis, along with an examination of primary contributing circumstances, our office recognizes the challenge of addressing pedestrian fatalities through enforcement efforts. In FY 18 the SHSO will leverage communication with state safety partners at ALDOT to encourage infrastructure and Public Information and Education efforts concerning pedestrian projects.

C-11) Number of Bicyclist Fatalities (FARS)

2010	2011	2012	2013	2014	Baseline	Goal
6	5	9	6	9	7	6

Reduce the number of bicycle fatalities by 14.3 percent from the five year baseline average of 7 (2010-2014) to 6 by 2017*.The five year average (2011 to 2015) number of bicyclist fatalities (FARS) for 2016 is 8. The goal was not achieved.

An analysis of the bicyclist fatalities was performed. In the majority of cases, the bicyclist was at fault. There were 14 bicyclist caused fatality crashes from 2011 through 2014 (an average of 3.5 per year) and there were six bicyclist caused fatal crashes in 2015 alone. Rear End crashes were the most noted manner of crash for bicyclist fatalities. There were six rear end fatal bicyclist crashes in 2015 while there were 12 during 2011-2014 (average of 3 per year). This coincides with poor lighting conditions when a motorist is not able to see a bicyclist is in the road. 'Roadway without lighting" was the most common lighting condition for bicyclist fatalities in 2015.

After this analysis, along with an examination of primary contributing circumstances, our office recognizes the challenge of addressing bicyclist fatalities through enforcement efforts. In FY 18 the SHSO will leverage communication with state safety partners to encourage the bicyclist advocacy groups and ALDOT to encourage Public Information and Education efforts with the public at large, such as posting additional signage educating motorists about sharing the road.

B-1) The observed seat belt use for passenger vehicles, front seat outboard occupants (survey).

2011	2012	2013	2014	2015	Baseline	Goal
88.0	89.5	97.3	95.7	93.3	92.8	93.0

Increase the observed seat belt usage by .22 from the five year baseline average (2010 -2014) of 92.8% to 93.0 % in 2017*. The five year average (2012 to 2016) observed seat belt use for passenger vehicles, front seat outboard occupants (survey) for 2016 is 93.56%. The goal was achieved.

* Five Year Average Goal

10.0 ALABAMA TRAFFIC SAFETY ACTIVITY MEASURES

10.1 A-1: Number of seat belt citations

2012	2013	2014	2015	2016
30,384	25,536	36,120	17,801	10,575

The total number of seat belt citations for 2016 was 10,575.

10.2 A-2: Number of impaired driving arrests

2012	2013	2014	2015	2016
2,021	2,508	3,848	2,381	906

The total number of impaired driving arrests in 2016 was 906.

10.3 A-3: Number of speeding citations

2012	2013	2014	2015	2016
42,067	57,670	63,890	64,719	30,807

The total number of speeding citations in 2016 was 30,807.

11.0 High Visibility Enforcement Campaigns Mobilization Activity

11.1 – 2016 Click It or Ticket Mobilization Activity

Click it Or Ticket- May 2016			
Total Agencies	425		
Reporting Agencies	94		
Participating Agencies	100		
Enforcement Activity			
Total Hours Worked	7,204		
Number of Checkpoints	9		
Citation Information			
DWI Arrests - Alcohol Only	21	Drug Influence Evaluations	0
DUID Arrests - Drugs Only	0	Safety Restraint Citations	4,548
DWI/DUID Arrests - Alcohol and Drugs	144	Suspended Licenses	746
DRE Arrests	0	Child Passenger Citations	81
Felonies	80	Speeding	9,937
Stolen Vehicles	0	Reckless Driving	103
Fugitives Apprehended	0	Other	8,085
Uninsured Motorists	1,980		
Paid Media Information			
TV	$83,685.00	Outdoor	$0.00
Radio	$50,926.00	On-Line	$59,998.00
Print	$0.00	Other	$42,474.00
Earned Media			
TV Spots (PSAs)	1,261	Radio News Stories	6
Radio Spots (PSAs)	2,271	Print News Stories	5
Press Conferences	0	On-line	3
TV News Stories	5	Other	0

11.2- 2016 Drive Sober or Get Pulled Over Mobilization Activity

2016 Drive Sober or Get Pulled Over - Labor Day			
Total Agencies		439	
Reporting Agencies		96	
Participating Agencies		96	
Enforcement Activity			
Total Hours Worked		11,362	
Number of Checkpoints		27	
Citation Information			
DWI Arrests - Alcohol Only	86	Drug Influence Evaluations	0
DUID Arrests - Drugs Only	4	Safety Restraint Citations	876
DWI/DUID Arrests - Alcohol and Drugs	22	Child Passenger Citations	93
DRE Arrests	0	Felonies	112
Stolen Vehicles	20	Speeding	3,986
Fugitives Apprehended	384	Reckless Driving	37
Suspended Licenses	1,057	Other	4,214
Uninsured Motorists	1,232		
Paid Media Information			
TV	$86,976.00	On-Line	$53,667.00
Radio	$51,807.00	Outdoor	$27,704.00
Print	$0.00	Other	$17,805.00
Earned Media			
TV Spots (PSAs)	1,507	Radio News Stories	30
Radio Spots (PSAs)	2,354	Print News Stories	34
Press Conferences	8	On-line	13
TV News Stories	360	Other	0

11.3- 2016 Hot Spot Impaired Driving Mobilization Activity

2016 High Visibility Enforcement "Hot Spot" Impaired Driving			
Total Agencies		425	
Reporting Agencies		108	
Participating Agencies		108	
Enforcement Activity			
Total Hours Worked			27,455
Number of Checkpoints		11	
Citation Information			
DWI Arrests - Alcohol Only	0	Drug Influence Evaluations	0
DUID Arrests - Drugs Only	0	Safety Restraint Citations	1,976
DWI/DUID Arrests - Alcohol and Drugs	688	Suspended Licenses	1,769
DRE Arrests	0	Child Passenger Citations	209
Felonies	197	Speeding	9,648
Stolen Vehicles	0	Reckless Driving	430
Fugitives Apprehended	0	Other	9,782
Uninsured Motorists	4,659		
Paid Media Information			
TV	$85,222.00	Outdoor	$0.00
Radio	$40,428.00	On-Line	$58,244.00
Print	$0.00	Other	$6,500.00
Earned Media			
TV Spots (PSAs)	1,261	Radio News Stories	4
Radio Spots (PSAs)	2,271	Print News Stories	7
Press Conferences	0	On-line	3
TV News Stories	5	Other	0