

**STATE OF ALABAMA**  
**FISCAL YEAR 2014**  
**HIGHWAY SAFETY PLAN**

Prepared for

THE US DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
and  
FEDERAL HIGHWAY ADMINISTRATION

by the

STATE OF ALABAMA  
Robert Bentley, Governor

ALABAMA DEPARTMENT OF ECONOMIC AND COMMUNITY AFFAIRS  
LAW ENFORCEMENT/TRAFFIC SAFETY DIVISION

Jim Byard, Jr., ADECA – Director  
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June 24, 2013



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## **CERTIFICATION AND ASSURANCES FOR HIGHWAY SAFETY GRANTS (23 U.S.C. CHAPTER 4)**

State: Alabama

Fiscal Year: 2014

Each fiscal year the State must sign these Certifications and Assurances that it 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.)

In my capacity as the Governor's Representative for Highway Safety, I hereby provide the following certifications and assurances:

### **GENERAL REQUIREMENTS**

To the best of my personal knowledge, the information submitted in the Highway Safety Plan in support of the State's application for Section 402 and Section 405 grants is accurate and complete. (Incomplete or incorrect information may result in the disapproval of the Highway Safety Plan.)

The Governor is the responsible official for the administration of the State highway safety program through 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)(1)(A))

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
- 49 CFR Part 18 - Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments
- 23 CFR Part 1200 – Uniform Procedures for State Highway Safety Grant 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.fsrc.gov/documents/OMB\\_Guidance\\_on\\_FFATA\\_Subaward\\_and\\_Executive\\_Compensation\\_Reporting\\_08272010.pdf](https://www.fsrc.gov/documents/OMB_Guidance_on_FFATA_Subaward_and_Executive_Compensation_Reporting_08272010.pdf)) by reporting to FSRG.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**

The State highway safety agency will comply with all Federal statutes and implementing regulations relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352), which prohibits discrimination on the basis of race, color or national origin (and 49 CFR Part 21); (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. 1681-1683 and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and the Americans with Disabilities Act of 1990 (Pub. L. 101-336), as amended (42 U.S.C. 12101, et seq.), which prohibits discrimination on the basis of disabilities (and 49 CFR Part 27); (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. 6101-6107), which prohibits discrimination on the basis of age; (e) the Civil Rights Restoration Act of 1987 (Pub. L. 100-259), which requires Federal-aid recipients and all subrecipients to prevent discrimination and ensure nondiscrimination in all of their programs and activities; (f) the Drug Abuse Office and Treatment Act of 1972 (Pub. L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (g) the comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (Pub. L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (h) Sections 523 and 527 of the Public Health Service Act of 1912, as amended (42 U.S.C. 290dd-3 and 290ee-3), relating to confidentiality of alcohol and drug abuse patient records; (i) Title VIII of the Civil Rights Act of 1968, as amended (42 U.S.C. 3601, et seq.), relating to nondiscrimination in the sale, rental or financing of housing; (j) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (k) the requirements of any other nondiscrimination statute(s) which may apply to the application.

## **THE DRUG-FREE WORKPLACE ACT OF 1988(41 USC 8103)**

The State will provide a drug-free workplace by:

- 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;
- Establishing a drug-free awareness program to inform employees about:
  - o The dangers of drug abuse in the workplace.
  - o The grantee's policy of maintaining a drug-free workplace.
  - o Any available drug counseling, rehabilitation, and employee assistance programs.
  - o The penalties that may be imposed upon employees for drug violations occurring in the workplace.
  - o 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).
- Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will –
  - o Abide by the terms of the statement.
  - o Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five days after such conviction.
- Notifying the agency within ten days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction.
- Taking one of the following actions, within 30 days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted –
  - o Taking appropriate personnel action against such an employee, up to and including termination.
  - o 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.
- Making a good faith effort to continue to maintain a drug-free workplace through implementation of all of the paragraphs above.

## **BUY AMERICA ACT**

The State will comply with the provisions of the Buy America Act (49 U.S.C. 5323(j)), which contains the following requirements:

Only steel, iron and manufactured products produced in the United States may be purchased with Federal funds unless the Secretary of Transportation determines that such domestic purchases 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. Clear justification for the purchase of non-domestic items must be in the form of a waiver request submitted to and approved by the Secretary of Transportation.

## **POLITICAL ACTIVITY (HATCH ACT)**

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**

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**

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**

### **Instructions for Primary Certification**

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
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.
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*, *debarred*, *suspended*, *ineligible*, *lower tier covered transaction*, *participant*, *person*, *primary covered transaction*, *principal*, *proposal*, and *voluntarily excluded*, as used in this clause, have the meaning set out in the Definitions and coverage sections of 49 CFR Part 29. 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 the department or agency entering into this transaction.

7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "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.

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, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

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

(1) 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 anti-trust 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 (1)(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.

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*, *debarred*, *suspended*, *ineligible*, *lower tier covered transaction*, *participant*, *person*, *primary covered transaction*, *principal*, *proposal*, and *voluntarily excluded*, as used in this clause, have the meanings set out in the Definition and Coverage sections of 49 CFR Part 29. 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 the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled "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. (See below)

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, 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.

*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.

**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](http://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](http://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 crashes 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.

## **ENVIRONMENTAL IMPACT**

The Governor's Representative for Highway Safety has reviewed the State's Fiscal Year highway safety planning document and hereby declares that no significant environmental impact will result from implementing this Highway Safety Plan. If, under a future revision, this Plan is modified in a manner that could result in a significant environmental impact and trigger the need for an environmental review, this office is prepared to take the action necessary to comply with the National Environmental Policy Act of 1969 (42 U.S.C. 4321, et seq.) and the implementing regulations of the Council on Environmental Quality (40 CFR Parts 1500-1517).

## **SECTION 402 REQUIREMENTS**

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)(1)(B))

At least 40 percent (or 95 percent, as applicable) 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 the political subdivision of the State in carrying out local highway safety programs (23 U.S.C. 402(b)(1)(C), 402(h)(2)), unless this requirement is waived in writing.

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)(1)(D))

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))<sup>10</sup>

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;
- 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;
- 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)(1)(F))

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))

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))

**I understand that failure to comply with applicable Federal statutes and regulations may subject State officials to civil or criminal penalties and/or place the State in a high risk grantee status in accordance with 49 CFR 18.12.**

**I sign these Certifications and Assurances based on personal knowledge, after appropriate inquiry, and I understand that the Government will rely on these representations in awarding grant funds.**

  
\_\_\_\_\_  
Signature Governor's Representative for Highway Safety

  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Printed name of Governor's Representative for Highway Safety

# COST SUMMARY

## U.S. Department of Transportation National Highway Traffic Safety Administration Highway Safety Plan Cost Summary

State: Alabama

*2014-HSP-1*  
For Approval

Page: 1  
Report Date: 06/26/2013

Program Area	Project	Description	Prior Approved Program Funds	State Funds	Previous Bal.	Incre/(Decre)	Current Balance	Share to Local
<b>NHTSA</b>								
<b>NHTSA 402</b>								
<b>Planning and Administration</b>								
	PA-2014-00-00-00	Planning & Administration	\$.00	\$175,000.00	\$.00	\$175,000.00	\$175,000.00	\$.00
	<b>Planning and Administration Total</b>		<b>\$.00</b>	<b>\$175,000.00</b>	<b>\$.00</b>	<b>\$175,000.00</b>	<b>\$175,000.00</b>	<b>\$.00</b>
<b>Alcohol</b>								
	AL-2014-SP-AL-01	Alcohol (Dept of Public Safety)	\$.00	\$8,473.61	\$.00	\$33,894.46	\$33,894.46	\$.00
	<b>Alcohol Total</b>		<b>\$.00</b>	<b>\$8,473.61</b>	<b>\$.00</b>	<b>\$33,894.46</b>	<b>\$33,894.46</b>	<b>\$.00</b>
<b>Police Traffic Services</b>								
	PT-2014-SP-PT-01	Police Traffic (NW Shoals Com Coll)	\$.00	\$16,814.25	\$.00	\$67,257.00	\$67,257.00	\$67,257.00
	PT-2014-SP-PT-02	Police Traffic (Shelton St Com Coll)	\$.00	\$14,159.25	\$.00	\$56,637.00	\$56,637.00	\$56,637.00
	PT-2014-SP-PT-03	Police Traffic (Etowah Cty Comm)	\$.00	\$50,442.50	\$.00	\$201,770.00	\$201,770.00	\$201,770.00
	PT-2014-SP-PT-04	Police Traffic (Mobile Cty Comm)	\$.00	\$34,513.25	\$.00	\$138,053.00	\$138,053.00	\$138,053.00
	PT-2014-SP-PT-05	Police Traffic (City of Montgomery)	\$.00	\$26,548.75	\$.00	\$106,195.00	\$106,195.00	\$106,195.00
	PT-2014-SP-PT-06	Police Traffic (Gadsden St Com Coll)	\$.00	\$9,734.50	\$.00	\$38,938.00	\$38,938.00	\$38,938.00
	PT-2014-SP-PT-07	Police Traffic (Enterprise St Com Coll)	\$.00	\$2,654.75	\$.00	\$10,619.00	\$10,619.00	\$10,619.00
	PT-2014-SP-PT-08	Police Traffic (Dept of Public Safety)	\$.00	\$200,000.00	\$.00	\$800,000.00	\$800,000.00	\$.00
	PT-2014-SP-PT-09	Police Traffic (Jefferson St Com Coll)	\$.00	\$43,362.75	\$.00	\$173,451.00	\$173,451.00	\$173,451.00
	PT-2014-SP-PT-10	Police Traffic (AL Tombigbee Reg Plan Co	\$.00	\$1,770.00	\$.00	\$7,080.00	\$7,080.00	\$7,080.00
	PT-2014-SP-PT-11	PT-CIOT (Enterprise St Com Coll)	\$.00	\$4,430.00	\$.00	\$17,720.00	\$17,720.00	\$17,720.00
	PT-2014-SP-PT-12	PT-CIOT (Mobile Cty Comm)	\$.00	\$5,815.00	\$.00	\$23,260.00	\$23,260.00	\$23,260.00
	PT-2014-SP-PT-13	PT-CIOT (Etowah Cty Comm)	\$.00	\$6,925.00	\$.00	\$27,700.00	\$27,700.00	\$27,700.00
	PT-2014-SP-PT-14	PT-CIOT (Gadsden St Com Coll)	\$.00	\$3,600.00	\$.00	\$14,400.00	\$14,400.00	\$14,400.00
	PT-2014-SP-PT-16	PT-CIOT (City of Montgomery)	\$.00	\$4,430.00	\$.00	\$17,720.00	\$17,720.00	\$17,720.00

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	PT-2014-SP-PT-17	PT-CIOT (NW Shoals Com Coll)	\$ .00	\$6,370.00	\$ .00	\$25,480.00	\$25,480.00	\$25,480.00
	PT-2014-SP-PT-18	PT-CIOT (Shelton St Com Coll)	\$ .00	\$4,165.00	\$ .00	\$16,660.00	\$16,660.00	\$16,660.00
	PT-2014-SP-PT-19	PT-CIOT (Jefferson St Com Coll)	\$ .00	\$9,695.00	\$ .00	\$38,780.00	\$38,780.00	\$38,780.00
	PT-2014-SP-PT-20	PT-CIOT (AL Tombigbee Reg Plan Co)	\$ .00	\$4,570.00	\$ .00	\$18,280.00	\$18,280.00	\$18,280.00
	<b>Police Traffic Services Total</b>		<b>\$ .00</b>	<b>\$450,000.00</b>	<b>\$ .00</b>	<b>\$1,800,000.00</b>	<b>\$1,800,000.00</b>	<b>\$1,000,000.00</b>
	<b>Safe Communities</b>							
	SA-2014-SP-CP-01	Comm Traffic Safety (NW Shoals Com Coll)	\$ .00	\$80,000.00	\$ .00	\$320,000.00	\$320,000.00	\$320,000.00
	SA-2014-SP-CP-02	Comm Traffic Safety (Shelton State Com C	\$ .00	\$45,575.00	\$ .00	\$182,300.00	\$182,300.00	\$182,300.00
	SA-2014-SP-CP-03	Comm Traffic Safety (Etowah Cty Comm)	\$ .00	\$52,696.74	\$ .00	\$210,786.99	\$210,786.99	\$210,786.99
	SA-2014-SP-CP-04	Comm Traffic Safety (Mobile Cty Com)	\$ .00	\$34,387.25	\$ .00	\$137,549.00	\$137,549.00	\$137,549.00
	SA-2014-SP-CP-05	Comm Traffic Safety (City of Montgomery)	\$ .00	\$20,043.31	\$ .00	\$80,173.26	\$80,173.26	\$80,173.26
	SA-2014-SP-CP-06	Comm Traffic Safety (Gadsden St Com Coll	\$ .00	\$31,595.00	\$ .00	\$126,380.00	\$126,380.00	\$126,380.00
	SA-2014-SP-CP-07	Comm Traffic Safety (Enterprise St Com C	\$ .00	\$36,770.89	\$ .00	\$147,083.58	\$147,083.58	\$147,083.58
	SA-2014-SP-CP-08	Comm Traffic Safety (Jefferson St Com Co	\$ .00	\$41,255.00	\$ .00	\$165,020.00	\$165,020.00	\$165,020.00
	SA-2014-SP-CP-09	Comm Traffic Safety (AL Tombigbee Reg Pl	\$ .00	\$27,360.00	\$ .00	\$109,440.00	\$109,440.00	\$109,440.00
	<b>Safe Communities Total</b>		<b>\$ .00</b>	<b>\$369,683.19</b>	<b>\$ .00</b>	<b>\$1,478,732.83</b>	<b>\$1,478,732.83</b>	<b>\$1,478,732.83</b>
	<b>Paid Advertising</b>							
	PM-2014-SP-PM-01	Paid Media (AL Dept of Commerce)	\$ .00	\$50,000.00	\$ .00	\$200,000.00	\$200,000.00	\$ .00
	<b>Paid Advertising Total</b>		<b>\$ .00</b>	<b>\$50,000.00</b>	<b>\$ .00</b>	<b>\$200,000.00</b>	<b>\$200,000.00</b>	<b>\$ .00</b>
	<b>NHTSA 402 Total</b>		<b>\$ .00</b>	<b>\$1,053,156.80</b>	<b>\$ .00</b>	<b>\$3,687,627.29</b>	<b>\$3,687,627.29</b>	<b>\$2,478,732.83</b>
	<b>408 Data Program SAFETEA-LU</b>							
	K9-2014-HS-K9-01	Data Program(AL Dept of Public Health)	\$ .00	\$15,000.00	\$ .00	\$60,000.00	\$60,000.00	\$60,000.00
	<b>408 Data Program Incentive Total</b>			<b>\$15,000.00</b>	<b>\$ .00</b>	<b>\$60,000.00</b>	<b>\$60,000.00</b>	<b>\$60,000.00</b>
	<b>408 Data Program SAFETEA-LU Total</b>		<b>\$ .00</b>	<b>\$15,000.00</b>	<b>\$ .00</b>	<b>\$60,000.00</b>	<b>\$60,000.00</b>	<b>\$60,000.00</b>



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Program Area	Project	Description	Prior Approved Program Funds	State Funds	Previous Bal.	Incre/(Decre)	Current Balance	Share to Local
<b>410 Alcohol SAFETEA-LU</b>								
	K8-2014-HS-K8-01	Alcohol Enforcement(NW Shoals Com Coll)	\$ .00	\$20,942.00	\$ .00	\$20,942.00	\$20,942.00	\$ .00
	K8-2014-HS-K8-02	Alcohol Enforcement(Mobile Cty Comm)	\$ .00	\$24,084.00	\$ .00	\$24,084.00	\$24,084.00	\$ .00
	K8-2014-HS-K8-03	Alcohol Enforcement(Enterprise St Com Co	\$ .00	\$17,801.00	\$ .00	\$17,801.00	\$17,801.00	\$ .00
	K8-2014-HS-K8-04	Alcohol Enforcement(Etowah Cty Com)	\$ .00	\$29,319.00	\$ .00	\$29,319.00	\$29,319.00	\$ .00
	K8-2014-HS-K8-05	Alcohol Enforcement(City of Montgomery)	\$ .00	\$21,990.00	\$ .00	\$21,990.00	\$21,990.00	\$ .00
	K8-2014-HS-K8-07	TSRP (Office of Prosecution Services)	\$ .00	\$167,052.12	\$ .00	\$167,052.12	\$167,052.12	\$ .00
	K8-2014-HS-K8-08	Alcohol Enforcement(Gadsden St Com Coll.	\$ .00	\$10,471.00	\$ .00	\$10,471.00	\$10,471.00	\$ .00
	K8-2014-HS-K8-09	Alcohol Enforcement(Jefferson St Com Col	\$ .00	\$33,508.00	\$ .00	\$33,508.00	\$33,508.00	\$ .00
	K8-2014-HS-K8-10	Alcohol Enforcement(Shelton St Com Coll)	\$ .00	\$16,754.00	\$ .00	\$16,754.00	\$16,754.00	\$ .00
	K8-2014-HS-K8-11	Alcohol Enforcement(AL Tombigbee Reg Pla	\$ .00	\$25,131.00	\$ .00	\$25,131.00	\$25,131.00	\$ .00
	<b>410 Alcohol SAFETEA-LU Total</b>		<b>\$ .00</b>	<b>\$367,052.12</b>	<b>\$ .00</b>	<b>\$367,052.12</b>	<b>\$367,052.12</b>	<b>\$ .00</b>
<b>410 Alcohol SAFETEA-LU Paid Media</b>								
	K8PM-2014-HS-K8-06	Alcohol PM (AL Dept of Commerce)	\$ .00	\$400,000.00	\$ .00	\$400,000.00	\$400,000.00	\$ .00
	<b>410 Alcohol SAFETEA-LU Paid Media Total</b>			<b>\$400,000.00</b>	<b>\$ .00</b>	<b>\$400,000.00</b>	<b>\$400,000.00</b>	<b>\$ .00</b>
<b>410 Alcohol SAFETEA-LU Total</b>			<b>\$ .00</b>	<b>\$767,052.12</b>	<b>\$ .00</b>	<b>\$767,052.12</b>	<b>\$767,052.12</b>	<b>\$ .00</b>
<b>MAP 21 405b OP Low</b>								
	M2PE-2014-HS-M2-01	Public Education(NW Shoals Comm College)	\$ .00	\$37,500.00	\$ .00	\$150,000.00	\$150,000.00	\$ .00
	<b>405b Low Public Education Total</b>		<b>\$ .00</b>	<b>\$37,500.00</b>	<b>\$ .00</b>	<b>\$150,000.00</b>	<b>\$150,000.00</b>	<b>\$ .00</b>
<b>405b Low OP Information System</b>								
	M2OP-2014-HS-M2-02	Information System (University of AL)	\$ .00	\$46,785.37	\$ .00	\$187,141.49	\$187,141.49	\$ .00
	<b>405b Low OP Information System Total</b>			<b>\$46,785.37</b>	<b>\$ .00</b>	<b>\$187,141.49</b>	<b>\$187,141.49</b>	<b>\$ .00</b>
<b>MAP 21 405b OP Low Total</b>			<b>\$ .00</b>	<b>\$84,285.37</b>	<b>\$ .00</b>	<b>\$337,141.49</b>	<b>\$337,141.49</b>	<b>\$ .00</b>
<b>MAP 21 405c Data Program</b>								
	M3DA-2014-HS-M3-01	Data Program (University of AL)	\$ .00	\$112,839.61	\$ .00	\$451,358.46	\$451,358.46	\$ .00

\$ .00

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		<b>405c Data Program Total</b>	\$ .00	\$ 112,839.61	\$ .00	\$ 451,358.46	\$ 451,358.46	\$ .00
		<i>MAP 21 405c Data Program Total</i>	\$ .00	\$ 112,839.61	\$ .00	\$ 451,358.46	\$ 451,358.46	\$ .00
		<b>NHTSA Total</b>	\$ .00	\$ 2,032,333.90	\$ .00	\$ 5,303,179.36	\$ 5,303,179.36	\$ 2,538,732.83
		<b>Total</b>	\$ .00	\$ 2,032,333.90	\$ .00	\$ 5,303,179.36	\$ 5,303,179.36	\$ 2,538,732.83

## EXECUTIVE SUMMARY

The Federal Section 402 Program is administered by the National Highway Traffic Safety Administration (NHTSA). The 402 Program is administered in Alabama by the Governor through the Alabama Office of Highway Safety (AOHS), which is housed within the Law Enforcement and Traffic Safety Division of the Alabama Department of Economic and Community Affairs (ADECA). The Alabama Highway Safety Plan (HSP) will reflect the new Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) reforms.

The Alabama Highway Safety Plan (HSP) is produced each year to provide continuous guidance and improvement in ongoing efforts to assure that 402 Program funds are allocated optimally in order to bring about the maximum reduction of crash-caused fatalities and severe injuries on Alabama roadways. According to the MAP-21 guidelines, 402 Program highway safety funds must be used to support programs that (source: GHSA Review of Section 402 State and Community Highway Safety Grant Program <http://www.ghsa.org/html/stateinfo/programs/402.html> (c) 2013):

- Reduce impaired driving
- Reduce speeding
- Encourage the use of occupant protection
- Improve motorcycle safety
- Improve pedestrian and bicycle safety
- Reduce school bus deaths and injuries
- Reduce crashes from unsafe driving behavior
- Improve enforcement of traffic safety laws
- Improve driver performance
- Improve traffic records
- Enhance emergency services

Alabama has met the requirements for Section 402 funding since the onset of the program in the late 1960s.

Consistent with Federal policy, these efforts involve various political subdivisions within the State, which carry out local highway safety programs that receive funding and the authorization to implement their local programs according to the specifications of the HSP. AOHS is led by the Governor's Representative/State Coordinator (GR/SC), to which a Highway Safety Program Manager and a Program Manager report directly. Nine regional Community Traffic Safety Program (CTSP) Coordinators report directly to the GR/SC. Working closely together with each other, and the GR/SC, the Coordinators implement all programs that involve local agencies. AOHS also has a Traffic Safety Resource Prosecutor who deals with impaired driving cases involving traffic violations, which range from minor misdemeanors to vehicular homicide.

The following present the high level characteristics of Alabama's HSP:

- **Vision:** To create the safest surface transportation system in the Southeast.
- **Primary ideals:** Saving the most lives and reducing the most suffering.

- **Countermeasure selection approach:** Detailed problem identification efforts to quantify and compare alternatives, consistently with *Countermeasures That Work*.
- **Primary focus:** Selective enforcement on speed and impaired driving hotspots.
- **Implementation Approach:** Cooperative effort that involves teamwork and diversity, including all organizations and individuals within the state who have traffic safety interests.
- **Participant mission:** Reduce fatalities and severe injuries by focusing on the locations with the highest potential for severe crash reduction, as identified for speed and impaired driving, which were the largest two causes of fatal crashes. Also, continue to strive to increase seat belt usage in order to reduce the severity of these crashes.

The traffic safety community within Alabama recognizes that fatalities are caused by factors in addition to speed and impaired driving; however, to produce the maximum benefit, the limited funding available is being applied to those causes that demonstrate the largest potential for fatality and severe injury reduction. Goals were set for each of the individual related crash (injury and severity) cause types. Even if all of these goals 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).

AOHS conducts ongoing problem identifications for all new issues as well as anything for which discretionary funds are expended. The analytical procedures employed are presented in the next section of this document. The basic goal of this analytical process is to evaluate the overall countermeasure strategy, and once that is resolved, to use the analyses to fine-tune the particular countermeasures that are implemented. This includes all of the basic countermeasures that are presented in this plan as well as the particular tactics to be applied in their implementations. From the highest strategic point of view, Table 1 in Part I of the report presents a comparison of the general weighting of each of the major issues that AOHS has been charged to address. The extract from Table 1 on the following page gives insight into the basic prioritization that was performed in resolving the overall state countermeasure strategies. The various categories are not mutually exclusive, and the detailed explanation for each crash type is given in the body of this document.

### Extract of Top Ten Fatality Causes from Table 1

Crash Type (Causal Driver)	Fatal Number	Fatal %	Injury Number	Injury %	PDO No.	PDO %	Total
1. Restraint Deficient*	366	3.53%	4,075	39.35%	5,916	57.12%	10,357
2. Impaired Driving	186	2.67%	2,661	38.19%	4,120	59.14%	6,967
3. Speeding	176	4.60%	1,779	46.49%	1,872	48.92%	3,827
4. Obstacle Removal	123	2.03%	2,102	34.75%	3,824	63.22%	6,049
5. Mature – Age > 64	103	0.90%	2,477	21.60%	8,887	77.50%	11,467
6. License Status Deficiency	97	1.53%	2,048	32.36%	4,183	66.10%	6,324
7. Youth – Age 16-20	91	0.43%	4,790	22.51%	16,400	77.06%	21,281
8. Motorcycle	89	4.65%	1,289	67.42%	534	27.93%	1,912
9. Ped., Bicycle, School Bus	88	4.36%	1,004	49.70%	928	45.94%	2,020
10. Pedestrian	78	9.01%	647	74.71%	141	16.28%	866

\* The numbers for "Restraint Deficient" are the total number of individuals killed, injured, or uninjured. This is different than the other categories within this table. For all other categories the number of *crashes* is given but for the category marked, the total number of *individuals* is given.

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 fatality and injury crashes. Table 1 demonstrates the highest potential for countermeasures in the broadest categories, since it is obvious that it is impossible to reduce more crashes than occur. It is true that a category with a lower potential could achieve higher benefits if the countermeasures applied to it were more effective. That is, it is both the potential for reduction and the effectiveness in the countermeasures that together determine the optimal countermeasures to apply.

Generally the number of fatalities is highly correlated with the number of injuries over the subject areas. A notable exception is in the mature age category, which reflects the lower survival rate for injured older drivers.

To illustrate the degree to which specific countermeasures were evidence based and the tactics applied were data driven, the Highway Safety Plan for FY 2014 addresses the two largest factors that *cause* injury and fatal crashes. 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 the prioritized lists that provided the basis for their selective enforcement efforts. These problem areas, known as *hotspots*, were defined by specific criteria depending on roadway classification. A total of 47 speed hotspots and 179 impaired driving-related hotspots were identified. These hotspots are defined, listed and mapped in this plan. Each of the regional coordinators used these specifications as the basis for their plans for the coming year. A further analytic procedure was applied to finding hotspots based on causal driver failure to be properly restrained. This is documented in Attachment A which starts on page 139.

The following presents a summary of each of the major strategies that are detailed in this plan:

- Continue the nine Community Traffic Safety Program (CTSP) projects.
- Continue to support the Center for Advanced Public Safety (CAPS) in exchange for their support of AOHS. CAPS provides AOHS with their crash and traffic safety data throughout the year.
- Conduct nine local Hotspot Special Traffic Enforcement Program (STEP) projects, one within each of the CTSP regions. Additionally, a statewide STEP project will be conducted in conjunction with the Alabama Department of Public Safety (DPS).
- Continue to require the CTSP Coordinators to conduct selective enforcement efforts that focus their plans on hotspot locations identified by the data analyses that were performed for their respective regions.
- Participate in national "Click It or Ticket" campaign on the statewide level.
- Conduct statewide "Drive Sober or Get Pulled Over" campaign as a part of the national campaign.
- Conduct sustained enforcement for impaired driving, speeding, and seat belts.
- Data driven enforcement programs will be conducted by participating law enforcement agencies in Alabama to prevent crashes, fatalities and injuries in the State.

Performance measures were established for assessing each of these strategies. Specific counter-measures 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, Seventh Edition, 2013*; which can be viewed at: <http://www.safehomealabama.gov/Portals/0/PDF/Countermeasures%20that%20Work%20811727.pdf> [This document will be henceforth referenced as "NHTSA Countermeasures that Work."]

To assure that the operation of the State's traffic safety program would be well organized and continue to be implemented on the basis of sound data analyses, provisions were made to accomplish a number of administrative goals. In summary, the administrative goals included the following:

- Training and internal interaction requirements (e.g., meetings and conferences) to keep the AOHS staff and those who they interact with familiar with the most recent developments in traffic safety that are relevant to their activities.
- Support and coordination of Section 402 and Section 405 (as given in the new MAP-21 guidelines), in the support and integration of eCite, eCrash, MMUCC, driver license access, EMS-medical data integration, roadway data and vehicle data.
- Legislative support activities to provide information for sound legislation through the efforts of the State Safety Coordinating Committee.
- The compilation, presentation and coordination of all formal governmental and volunteer traffic safety efforts within Alabama by means of the <http://www.SafeHomeAlabama.gov/> website.

It will be impossible to accomplish all of the plans set forth in this document without statewide cooperation throughout the traffic safety community. To accomplish this, AOHS has forged key partnerships that are briefly described below:

- Community Traffic Safety Program (CTSP) 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.
- Alabama Department of Public Safety – in being 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.
- Alabama Department of Transportation (ALDOT) – in participating on their monthly sponsored Safety Outreach Meetings.
- Strategic Highway Safety Plan Steering Committee – which also brings involvement and close cooperation with ALDOT and the following Federal agencies:
  - Federal Highway Administration (FHWA)
  - Federal Motor Carrier Safety Administration (FMCSA)
  - National Highway and 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 through their efforts to inform the public of all selective enforcement and other projects.
- 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 (CAPS) – which provides the information foundation from crash, citation, EMS runs and other databases to enable AOHS and the CTSP Coordinators and LELs to be assured that their traffic safety resources are being allocated most effectively. CAPS also provides liaison with other university traffic safety efforts (see <http://www.safehomealabama.gov/Universities.aspx>).

## PLANNING PROCESS

The planning process starts with a very general problem identification, which is initiated as soon as the close out of the previous year's data is completed. This occurs in the April-May time frame. The detailed procedure for the problem identification is given in a separate section below. 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 performed by CAPS has shown that three years is an optimal time span for predicting future hotspots. The increased value of adding a fourth year is offset by the misinformation that comes from the obsolete data.

As shown by the problem identification details, the plan is totally data driven. In order to get the CTSP Coordinators to be totally involved in this process, they are required to submit their tentative plans in the April-May time frame, at about the same time as the statewide problem identification is being performed. While this tentative plan is based on data that is not totally current, it has the advantage of reflecting the experience that the CTSP Coordinators have had in their previous year of implementation. As an extreme example, it may contain information related to the inexperience or failure to cooperate of a local agency and plans to overcome such issues. These are factors that cannot be seen or appreciated by computer outputs at the state level.

AOHS takes advantage of the expertise built up over many years by the University of Alabama Center for Advanced Public Safety (CAPS) to perform the problem identification, and to work with AOHS GR/SC and staff in assembling a tentative statewide planning document. Using the 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 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. As seen in the current document, the results are subdivided by the nine CTSP regions. These data are distributed then to the CTSP Coordinators so that they can refine their respective plans.

A similar exercise involves the Alabama Department of Public Safety (DPS), who are given information on Interstates and rural state routes that they are most apt to patrol. Generally, each region and the DPS receive 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 also 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 they relate to the statewide plan.

Once this information is provided to the CTSP 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.



# PROBLEM IDENTIFICATION

## PROCEDURE FOR THE PROBLEM IDENTIFICATION

AOHS has a contract with the University of Alabama/CAPS for the purpose of continually improving and streamlining the problem identification process. Among other innovations, this has resulted in the creation of the Critical Analysis Reporting Environment (CARE) system, which is being continuously improved to produce greater information benefits to the state, now in its tenth major upgrade (CARE10).

To avoid ambiguity, the terms “Impaired Driving” or “Impaired Driver” are used throughout this document to refer to DUI-caused crashes that are the result of either alcohol or any drug involvement according to the reporting officers. We recognize that alcohol is a drug, and as the predominant drug of choice, it is the one that is most abused and the easiest for reporting officers to detect. While other drugs are reported in a relatively small numbers compared to alcohol involvement, it is of growing concern and AOHS agrees with NHTSA that impaired driving is not limited to only alcohol causation. Those statistical tables where information is only available on alcohol will be noted.

The first step in the problem identification process was to determine those types of crashes that were going to be targeted for countermeasure implementation. The top three items in Table 1 on page 28, (discussed below) were Speed, Impaired Driving and Restraints Not Used. The first two of these are causes of severe crashes; the third is a failure on the part of one or more crash vehicle occupants to protect themselves in the event of a crash; i.e., seatbelts prevent more severe injuries, but they only very rarely prevent the crash itself. The major countermeasures chosen were selective enforcement based on evaluations that have been performed in Alabama demonstrating the effectiveness of adding enforcement officers. This report is available on:

<http://www.safehomealabama.gov/Enforcement/EnforcementStudies.aspx>

In addition, specific countermeasures within each of these categories were checked for their effectiveness estimates from the NHTSA-recommended document, *NHTSA Countermeasures that Work*.

Three years of data (2010-2012 calendar year data) were used to find the hotspots. While focusing and addressing the behavioral problems of speeding and impaired driving, law enforcement were urged to compare these hotspots with those for unrestrained drivers and to alter their tactics accordingly, and in all cases to continue to issue tickets for unrestrained occupants. Individuals who drive impaired and drive above the posted speed limits have been found to be in the risk-taking category, and they are highly correlated with those who typically refuse to use (or insist upon the use of) occupant restraints.

The criteria used for defining hotspots for the Fiscal Year 2014 HSP was also used in the Fiscal Year 2013 Highway Safety Plan. By using essentially the same search criteria to locate hotspots, comparisons can be made from year to year for the state as a whole, and for each CTSP region within the state. For the FY 2014 HSP, the 2010-2012 calendar years were used. We anticipate that similar criteria for defining hotspots will continue to be used in future years in order to allow for comparison of data and hotspots from one year to the next.

Speeding and Impaired Driving crash location hotspots can be divided into seven groups:

1. Speeding Mileposted Locations on Interstate Routes,
2. Speeding Mileposted Locations on State/Federal Routes,
3. Speeding Non-Mileposted Segment Locations,
4. Impaired Driving Mileposted Locations on Interstate Routes,

5. Impaired Driving Mileposted Locations on State/Federal Routes,
6. Impaired Driving Non-Mileposted Segment Locations, and
7. Impaired Driving Non-Mileposted Intersection Locations.

Speeding is not typically listed as a crash cause at intersections, and thus high-crash speed-related crashes would not be a useful criterion.

Criteria for finding hotspots were defined for each of these seven categories and the CARE system was used to find the hotspots. The following indicates the criteria that were applied;

1. Speeding Mileposted Locations on Interstate Routes with five or more Injury or Fatality crashes within 10 miles. Injuries and fatalities were then summed and hotspots (10 miles in length) with eight or more injury or fatality crashes were used,
2. Speeding Mileposted Locations on State/Federal Routes with five or more Injury or Fatality crashes within 10 miles. Injuries and fatalities were then summed and hotspots (10 miles in length) with eight or more injury or fatality crashes were used,
3. Speeding Non-Mileposted Segment Locations with three or more crashes resulting in injury or fatality
4. Impaired Driving Mileposted Locations on Interstate Routes with two or more crashes within five miles. Injuries and fatalities were then summed and hotspots (5 miles in length) with eight or more injury or fatality crashes were used,
5. Impaired Driving Mileposted Locations on State/Federal Routes with two or more crashes within five miles. Injuries and fatalities were then summed and hotspots (5 miles in length) with nine or more injury or fatality crashes were used,
6. Impaired Driving Non-Mileposted Segment Locations with three or more crashes, and
7. Impaired Driving Non-Mileposted Intersection Locations with three or more crashes.

A more detailed explanation of the criteria for the various hotspot locations, and the process used in their determination is given in Parts I and IV.

Once the hotspots were defined and the locations were found using CARE, the CTSP Coordinators from across the state were 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 their focused efforts. A copy of the statewide report that was developed using CARE and integrated GIS mapping programs is given in Part IV.

Using the reports and maps developed for each region, the CTSP Coordinators will develop a plan, including the time schedule and work assignments, for their region that focuses on the hotspot locations. More detailed information on the goals and strategies for the state are included in Part III. The goals set on a regional basis will be in line with the goals and strategies laid out in that section.

## **GENERAL CONSIDERATIONS OF THE PROBLEM IDENTIFICATION**

For FY 2014, AOHS continued the strategy and focus that was originally laid out in the FY 2008 HSP and was continued through FY 2013; namely, identifying and focusing on impaired driving and speed related hotspots in the State of Alabama, with a special emphasis on locations where occupant restraints were also found to be overrepresented. The changes made for the FY 2008 HSP included improvements to the methodology used in previous plans. This shift was a significant step in the right direction as it identified specific problem locations from across the state and compelled CTSP Coordinators to focus their efforts on these specific locations. The change for the FY 2008 plan, while still

focusing on hotspot locations, shifted the focus away from issues of lower priority or potential for crash reduction to locations directly related to speeding and impaired driving. The methodology used for the FY 2008-2013 plans has been used in the FY 2014 plan. It is anticipated that these criteria will continue to be used in future years in order to gauge the progress made towards reaching both short term and long term goals set for the state.

In the plans for FY 2008 through FY 2013, an effort was made to focus on impaired driving hotspots and speed related hotspots with high numbers of injuries and fatalities. It is clear by looking at Table 1 (page 22) that the two biggest problem areas, in terms of behavior that causes crashes, are speeding and impaired driving. While the failure to use occupant protection devices is infrequently the cause of a crash, it can have a mitigating effect on the severity both per se and in some rare cases by enabling the driver to regain control. Thus, the consideration of hotspots where causal drivers are not properly restrained is anticipated to have a very positive effect on crash severity reduction and the saving of lives (see Appendix A: Section 405b Occupant Protection Plan). Since these trends have been recognized year after year, they cannot be ignored and must be consistently and continually addressed.

AOHS personnel have 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 has been incorporated into the Alabama SHSP as an appendix. The major goals of both the HSP and the SHSP are to bring about a more effective and coordinated statewide allocation of traffic safety resources, including funding and equipment, but most importantly, personnel.

A simple, intuitive high-level tool was sought to bring into focus the true issues involved in making traffic safety improvements. To this end, Table 1 was developed in an attempt to bring together and initiate a process of prioritization for all of the key traffic safety categories. All SHSP participants were encouraged to add any categories that they felt were appropriate. The data contained in Table 1 is used year after year by those in the traffic safety profession across the State of Alabama, since this information provides a broad overview of the key categories of concern to those within the traffic safety community. It is recognized that this information obtained by comparing gross fatality and injury counts in overlapping categories is merely a first step in the analytical process that can lead to optimal allocations of resources among programs. However, without such a high level view much time is wasted in analyzing areas that have little hope of addressing the major traffic safety problems within the state.

**Table 1. Summary of Crash Severity by Crash Type –Alabama CY2012 Data**

<b>Crash Type (Causal Driver)</b>	<b>Fatal Number</b>	<b>Fatal %</b>	<b>Injury Number</b>	<b>Injury %</b>	<b>PDO No.</b>	<b>PDO %</b>	<b>Total</b>
1. Restraint Deficient*	366	3.53%	4,075	39.35%	5,916	57.12%	10,357
2. Impaired Driving	186	2.67%	2,661	38.19%	4,120	59.14%	6,967
3. Speeding	176	4.60%	1,779	46.49%	1,872	48.92%	3,827
4. Obstacle Removal	123	2.03%	2,102	34.75%	3,824	63.22%	6,049
5. Mature – Age > 64	103	0.90%	2,477	21.60%	8,887	77.50%	11,467
6. License Status Deficiency	97	1.53%	2,048	32.36%	4,183	66.10%	6,324
7. Youth – Age 16-20	91	0.43%	4,790	22.51%	16,400	77.06%	21,281
8. Motorcycle	89	4.65%	1,289	67.42%	534	27.93%	1,912
9. Ped., Bicycle, School Bus	88	4.36%	1,004	49.70%	928	45.94%	2,020
10. Pedestrian	78	9.01%	647	74.71%	141	16.28%	866
11. Fail to Conform to S/Y Sign	32	0.52%	1,663	26.80%	4,510	72.68%	6,205
12. Utility Pole	30	1.32%	831	36.53%	1,414	62.15%	2,275
13. Non-pickup Truck Involved	30	0.68%	712	16.20%	3,653	83.12%	4,395
14. Construction Zone	23	1.03%	477	21.37%	1,732	77.60%	2,232
15. Roadway Defects – All	21	0.61%	807	23.56%	2,598	75.83%	3,426
16. Vehicle Defects – All	17	1.14%	350	23.46%	1,125	75.40%	1,492
17. Vision Obscured – Env.	13	1.21%	271	25.28%	788	73.51%	1,072
18. Fail to Conform to Signal	12	0.27%	1,306	29.49%	3,110	70.23%	4,428
19. Bicycle	9	1.46%	270	43.76%	338	54.78%	617
20. Child Restraint Deficient*	4	0.18%	347	15.22%	1,929	84.61%	2,280
21. Railroad Trains	1	0.83%	35	28.93%	85	70.25%	121
22. School Bus	1	0.18%	103	18.39%	456	81.43%	560

\* The Fatal, Injury and PDO numbers for the “Restraint Deficient” and “Child Restraint Deficient” are the total number of persons killed, injured and uninjured, respectively. This is different from the other categories in that they list the number of crashes in which such an injury severity was incurred.

Table 1 is sorted so that the crash type category with the highest number of fatal crashes is listed first, descending to the crash type category with the lowest number of fatal crashes listed last. Categories were defined by the members of the SHSP steering committee who submitted all significant categories within their respective areas of interest. Each crash type category lists the crashes that happened for that particular category between January 1, 2012 and December 31, 2012, which elsewhere is called the Calendar Year (CY). Within the Performance Goals and Strategies section, all past statistics have been updated to reflect the CY. The categories given in Table 1 are not mutually exclusive (e.g., you could have an impaired driving crash that also involved speeding). However, they still tend to demonstrate the relative criticality of that particular category.

The crash frequency within each severity classification is given in Table 1 for CY 2012. The severity classifications are quite significant, and the arrangement is generally by fatal crashes. The percentages given are for the respective severity classification only; thus, these percentages represent the relative severity of the crash category, and this can be used to compare the crash categories by severity. For example, it might be noticed that the severity of pedestrian, motorcycle and railroad crashes are significantly higher than most other categories, as is true for those crashes in which the driver was not properly restrained.

In 2009, the State of Alabama made a major change in their crash form and this resulted in changes in the data that was being collected across the state. After a multiyear process of trying to improve the data elements collected, the eCrash system was developed that enables officers to enter data directly into the computer (paperless). This change helped to create data that met the Model Minimum Uniform Crash Criteria (MMUCC) and provided better data for future analysis. With this change, a number of new variables and codes were introduced to the crash report, allowing for more accurate and complete data from the crash data entered by officers in the field. This upgrade has caused some changes to the search criteria used in Table 1 as well as the search criteria for Impaired Driving and Speed Hotspots. Careful work was done to ensure that no variables or codes were missed and that the search criteria captured all of the crashes for that particular category.

The Highway Safety Plan for FY 2014 takes a critical look at the two largest factors in Table 1 that cause crashes, injuries and fatalities. Crashes that fell into either the Speed or Impaired Driving category were identified and locations with high numbers of these crashes that involved injury or fatalities were included in the Hotspots lists in Part IV of the plan.

For the FY 2014 analysis, data from three prior years (CY 2010-2012) were used. A total of 47 Speeding hotspots and 179 Impaired Driving hotspots were identified. These hotspots are defined, listed and mapped (when possible) in Part IV of this plan, requiring the CTSP Coordinators and the officers within their jurisdictions to work those areas that were most critical as given by the evidence based analyses. The plans for each of the regional coordinators for the coming year will focus on these hotspot areas, as portions of their funding will be restricted to working the speeding and impaired driving hotspot locations defined for each region.

Alabama's fatality counts and fatality rates (per 100 million vehicle miles traveled) since 1987 are given below.

<u>Year</u>	<u>Rate</u>	<u>Fatalities</u>	<u>Miles Driven (100 MVMT)</u>
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	966	591.48
2009	1.38	849	613.00
2010	1.34	859	641.51
2011	1.38	894	649.14

Alabama can be proud that it has cut its fatality rate by 50% over the time period represented above. The reduction in rates over the past few years is also extremely promising, reflecting major efforts in publicizing and enforcing the primary seat belt law, and the many other efforts along the broad range of traffic safety activities. Alabama will not be satisfied, however, with even one death and shattered family 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 the trend toward zero deaths.

In 2008, Alabama saw the first decrease ever in the number of vehicle miles traveled (VMT). This can in part be attributed to the downturn in the national economy and the significantly higher gasoline prices that were experienced in 2008. In 2009, the vehicle miles traveled continued to fall and reached rates not seen since the late 1990's. This is likely due to the fact that the economy had not bounced back as quickly as originally projected and gas prices remained high. However, even with a reduction in total vehicle miles traveled, the fatality rate has continued to decrease since 2006 and reached a new low in 2011 that was closely matched in 2012.

This document will continue by presenting the Vision, Ideals and Mission in Part II, which gives an overview of the AOHS strategic planning efforts. Part III presents the goals and strategies to address hotspot locations. Finally, Part IV gives the statewide analyses of speed and impaired driving hotspot locations. Each CTSP Coordinator and LEL receives a copy of the statewide list as well as information that is specific for their region. These lists allow them to focus on the countermeasures that will have the most impact on their area of the state.

# VISION, IDEALS, MISSION

## VISION:

**To create the safest surface transportation system in the Southeast 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). In order to perform an accurate evaluation of the metric, Alabama will be compared to the other states in NHTSA Region 4.

## IDEALS:

**Coordination and cooperation to move toward this vision requires that the following ideals be accepted as guiding principles in this endeavor:**

- *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 Suffering.* Reduce suffering and property loss resulting from injury and property damage only crashes.
- *Focus on speed and impaired driving hotspots.* When looking at crashes in Alabama and the damage that they cause in terms of suffering and property loss, crashes caused by speeding and impaired driving were determined to be the biggest problem areas. In order to help reduce these crashes, all organizations and individuals in the area of traffic safety must be committed to working on these hotspot locations. Plans developed by the state's safety coordinators should reflect this focus and funding will be concentrated on hotspot crash locations that have been identified as problems. While focusing and addressing the behavioral problems of speeding and impaired driving, law enforcement will continue issuing tickets to unrestrained motorist. Individuals who drive impaired and drive above the posted speed limits are most often not using occupant restraints.
- *Teamwork and Diversity.* Recognize that these ideas will only be attained through the dedication to cooperative efforts among a wide range of federal, state and local organizations. All highway users and user groups must be adequately represented, and all sub-disciplines will be given the opportunity to provide input and information.

## MISSION:

**Conduct selective enforcement coupled with PI&E that will reduce fatalities and injuries by focusing on the locations identified for speed and impaired driving hotspots with additional strong consideration on hotspots where deficiencies in occupant protection were found.**

Speeding and impaired driving are the biggest causes of traffic crash fatalities and are major problem areas for traffic safety in the State of Alabama. By focusing efforts to reduce the number of speed and impaired driving related crashes, lives have been saved in the past and can be saved in the future. Each of these crashes is caused by the *choice* to speed or drive impaired. By changing driver behavior, the number of hotspot locations can be reduced and traffic safety will be improved.

# GOALS AND STRATEGIES

## Process for Developing Goals

During the planning cycle for FY 2007, the idea of using the information generated by the comparisons in Table 1 was developed. As discussed above, Table 1 generally shows those categories of crashes with the greatest potential for crash reduction. This focus was a revolutionary improvement over the plans from earlier years as the state began to target specific locations across the state that had a high potential for speed and impaired driving crashes as opposed to consuming resources in areas that did not have a high potential for fatality reduction. This revision was carried out in the FY 2009 HSP, and it has been used with very slight revisions since that time. Due to its continued success, it is being implemented again for FY 2014. Countermeasure efforts planned for fiscal year 2014 focus on both of these key areas. Specific thresholds and target dates were set based on past trends and expectations from past programs as discussed individually below.

For 2014, funding to the state CTSPs will be largely focused on the problem locations discussed and defined in Part IV of this plan. In addition, AOHS will continue participation in the “Click It or Ticket” and “Drive Sober Or Get Pulled Over” campaigns. AOHS continues to pledge its support to these programs and will fund the participating regions accordingly. These programs have received extensive review and recommendations by those who developed the state’s Strategic Highway Safety Plan (SHSP), and these projects have received approval from that group to the point that the HSP is being included as an appendix in the SHSP. The overall goals set in the Strategic Highway Safety Plan for the State of Alabama are complementary to, and consistent with, those presented below.

Goals will be presented in the following categories: (1) Traffic Safety Performance Measures, (2) Traffic Safety Activity Measures, (3) Overall Program Goal, (4) Performance Goals and Strategies, Administrative Goals, and (5) Legislative Goals. The goals were set jointly by AOHS and CAPS using FARS and CARE crash data to define data driven goals.

The table on the following page presents a multi-year summary and the item numbers within this table are used below in the goal definitions.



## Statewide Statistics 2006-2011

	2006	2007	2008	2009	2010	2011	Baseline
C-1. Number of Traffic Fatalities	1,207	1,110	969	848	862	894	893
C-2. Number of Serious Injuries in Crashes *	25,164	22,755	20,293	15,131	10,544	9,904	11,138
C-3 Fatalities/100M VMT							
• Total _____	1.99	1.81	1.63	1.38	1.34	1.38	1.43
• Urban _____	1.31	1.20	1.18	1.08	0.97	N/A	1.08
• Rural _____	2.69	2.44	2.10	1.69	1.72	N/A	1.84
C-4. Number of Unrestrained Occupant Fatalities, All Seat Positions	568	538	452	378	394	382	402
C-5. Number of Fatalities Involving Driver or Motorcycle Rider with .08+ BAC	377	377	314	267	264	261	277
C-6. Number of Speeding-Related Fatalities	568	497	447	327	316	298	347
C-7. Number of Motorcyclist Fatalities	105	85	100	76	86	98	90
C-8. Un-helmeted Motorcyclist Fatalities	10	8	15	7	5	10	9
C-9. Number of Drivers Age 20 or Younger Involved in Fatal Crashes	230	194	163	140	140	136	145
C-10. Number of Pedestrian Fatalities	78	69	68	64	61	79	68
B-1. Observed Seat Belt Use, Front Seat Outboard Occupants	82.9%	82.3%	86.1%	90.0%	91.4%	88.0%	89.7%
Speed Hotspots*	120	142	123	93	63	45	81
Speed Fatal Crashes*	370	359	338	221	212	188	240
Speed Injury Crashes*	3,712	3,392	2,958	2,299	1,883	1,832	2243
Impaired Driving Hotspots*	218	191	190	194	143	144	168
Impaired Driving Fatal Crashes*	237	257	212	237	210	217	219
Impaired Driving Injury Crashes*	3,042	2,719	2,450	2,548	2,798	2,647	2611

\* State Data

**Baseline Notes:**

Baselines are 4-year averages of 2008-2011 data.

C-2 and B-1 uses 2009-2012 for 4-year average baseline.

Urban and Rural Fatalities/100M VMT baseline uses a 2008-2010 for a 3-year average.

Hotspot 4-year averages are not used as a baseline.

## Traffic Safety Performance Measures for FY 2014

**General Considerations.** The general rationale for setting the specific goals will be presented under the various charts below that illustrate the baseline and the trends. In order to keep from being repetitious, there are some general consideration that will be presented here, since they generally apply to more than one of the metrics. These will be referenced back by the following “Item” numbers:

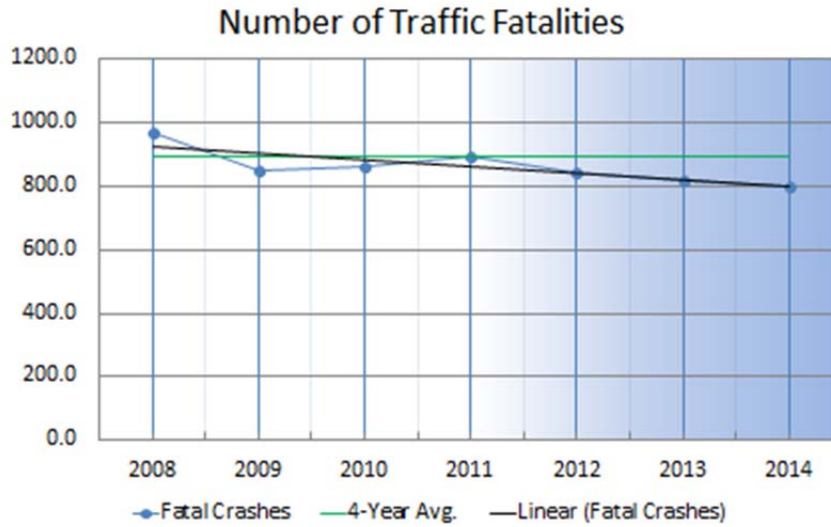
1. Generally the baseline for the estimates will be based upon the most recent four years of data. This can be seen from the graphs that demonstrate the metrics over the past four available calendar years (2008-2011). The following are the only exceptions to this rule:
  - C-2 uses 2009-2012 since 2008 was on a completely different definition of A injury; see Item 5 below.
  - C-3, which consists of three rate metrics, is based on three years (2008-2010) of data because FARS data for these metrics was not available at the time that this document was required by NHTSA to be produced.
2. In all of the graphs, the shaded area represents the projected number if the established trend as given by a regression over the previous known values continues. The first year that is projected 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 is projected, the less reliable will be the projection. The state also tried three year moving averages but there were no significant differences from the results based on the raw numbers.
3. Extrapolating from a limited number of past values can lead to extreme errors, especially since the last value that we have in most cases is 2011, requiring (for example) that the estimates of 2012, 2013 and 2014 all be based on an extrapolation of 2008 through 2011. Rarely if ever does such a linear trend establish an accurate prediction, especially in crash data where regression to the mean usually follows any dramatic departure from the established trend. Nevertheless, these estimates are presented since they do provide valuable information upon which to make and refine the estimates.
4. **All fatality count metrics.** The above (Item 3) is particularly true of any metric that is dependent on fatality counts. Consistent with the national trend, Alabama experienced almost a 24% reduction in fatalities between CY 2007 and CY 2009. 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 expected regression to the mean has not occurred. 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 four-year trend and the baseline will go back no further than 2008. 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 2014 and the baseline. Notable exceptions to these general patterns were observed in motorcycle and pedestrian fatalities; they are discussed in separate items 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) went to a different definition of severe injury (also called "A" injury). Generally the pre-2009 A injury count is almost double the post-2009, and the 2009 A injury count reflects at least half a year under the old system. The C-2 graph shows a precipitous drop between 2009 and 2010 caused largely by this reporting anomaly. Viewing the graph, the 2010-2012 points produce a straight line, which, projected out produces a much more realistic forecast for 2013 and 2014, with some regression to the mean expected as well.

6. **Motorcycle fatalities.** The rationale with regard to fatalities in general (Item 4) given above 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 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 is reasonable to expect that the sustainment of the baseline of 90 would be a reasonable goal. Note that the attainment of this goal would have saved ten lives in 2008 and eight lives in 2011.
7. **Pedestrian fatalities.** The cause for the increase in pedestrian fatalities in 2011 is under investigation, but it is difficult to find any patterns with only 79 cases. The state decided to set a goal below the baseline despite this counter trend, since a regression to the mean is clearly expected in 2012 and 2013.
8. **Seat belt use.** The graph portrays an impression that seatbelt use in Alabama is declining. This conclusion is unwarranted. A common sense comparison of the numbers over 2010, 2011 and 2012 illustrates that the variation here is largely due to randomness and the difficulty in estimating changes when dealing with the final 10% percentile. Would any reasonable person believe that the actual seatbelt use dropped a full 3.4% in 2011 and then rebounded by half of this amount in 2012 in the identical population mix and nearly the same economic conditions? Using random variation to forecast two years out is of limited use, and a much better estimate is obtained from the baseline since the actual seatbelt use has reached a level where it is relatively stable from year to year.
9. **Citations as traffic safety metrics.** These metrics are very important to gauge traffic safety activities. However, it is important to contemplate just what it means to have more (or less) citations in a given year. A reduction could mean that there were fewer violations, and we would certainly hope that this would be the case. However, it could also mean that the law enforcement traffic safety activity was less, and this would be counterproductive to the overall traffic safety effort. In the case of Alabama there is no question that the lack of funding for DPS and other local agencies has reduced the capability to detect violations and issue citations. DPS has not been able to replace personnel who have left due to attrition (in many/most cases retirements). Shortage of funds have gotten to such a point that officers have been ordered to ration their fuel and pull over if at all possible. These are direct influences of funding reductions; what is difficult to gauge is the overall morale problems caused by such actions. The goals have been set for these metrics more as an attempt to predict what might occur two years out, in 2014, rather than to place some mandatory requirements on our law enforcement agencies.

C-1) Number of traffic fatalities (FARS)

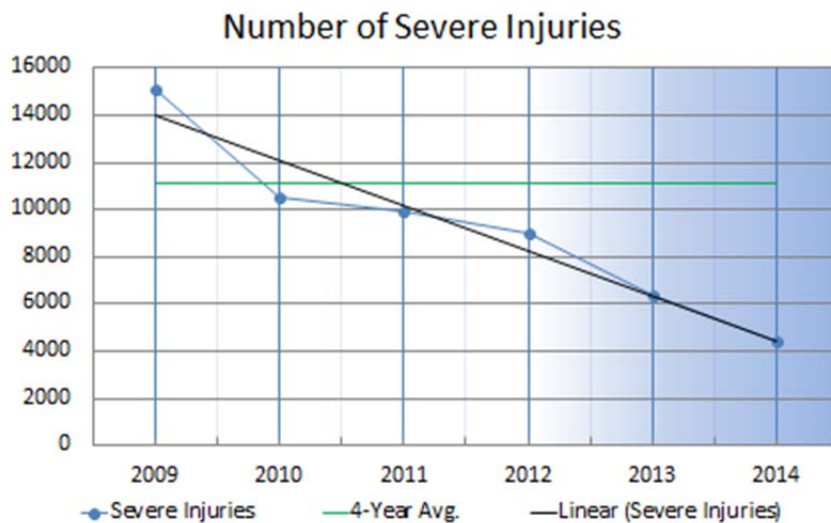
<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>Goal</u>
969	848	862	894	875



Based on the above analysis of the FARS data from 2008 through 2012 (shaded area is projected), the goal for calendar year 2014 is to reduce the number of fatalities from its four year baseline of 893 to 875 traffic fatalities. The rationale for this is explained in General Considerations Item 4.

C-2) Number of severe injuries in traffic crashes (State crash data files – most severe category: “A” Injuries.)

<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>Goal</u>
15,131	10,544	9,904	8,974	7,750

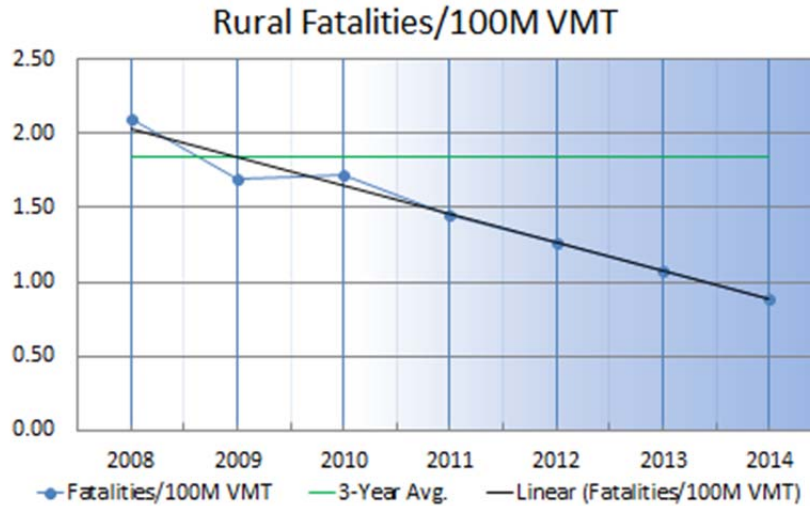


Based on the above analysis of the Alabama data from 2009 through 2012 (shaded area is projected), the goal for calendar year 2014 is to reduce the number of severe injuries from its four-year (2009-2012) baseline of 11,138 to 7,750. The rationale for this is explained in General Considerations Item 5.

C-3) Fatalities/100M VMT (FARS, FHWA)

**Rural Fatalities/100M VMT**

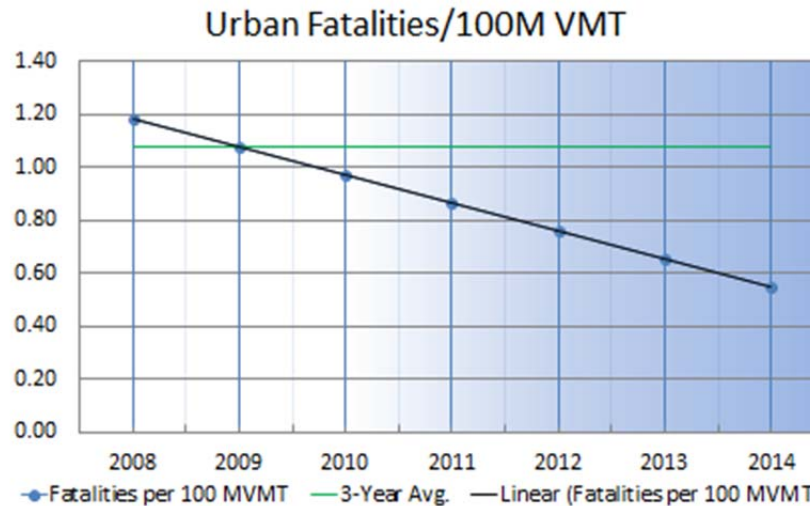
2008	2009	2010	Goal
2.10	1.69	1.72	1.70



Based on the above analysis of the FARS crash data from 2008 through 2010 (shaded area is projected), the goal for calendar year 2014 is a reduction from the 1.84 baseline to 1.70 rural fatalities per 100M VMT. See General Considerations Item 1 (C-3).

**Urban Fatalities/100M VMT**

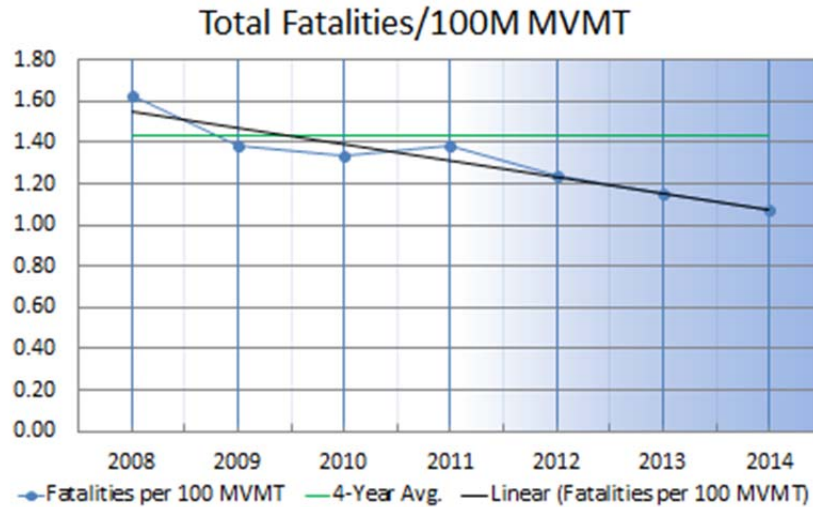
2008	2009	2010	Goal
1.18	1.08	.97	.95



Based on the above analysis of the FARS crash data from 2008 through 2010 (shaded area is projected), the goal for calendar year 2014 is a reduction from the 1.08 baseline to 0.95 urban fatalities per 100M VMT. See General Considerations Item 1 (C-3).

### Total Fatalities/100M VMT

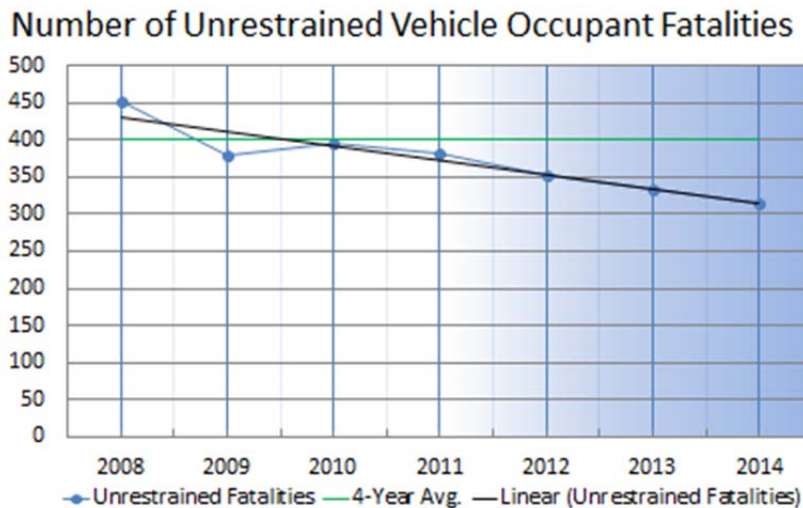
2008	2009	2010	2011	Goal
1.63	1.38	1.34	1.38	1.35



Based on the above analysis of the FARS crash data from 2008 through 2010 (shaded area is projected), the goal for calendar year 2014 is a reduction from the 1.43 baseline to 1.35 urban fatalities per 100M VMT. See General Considerations Item 1 (C-3).

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

2008	2009	2010	2011	Goal
452	378	394	382	375

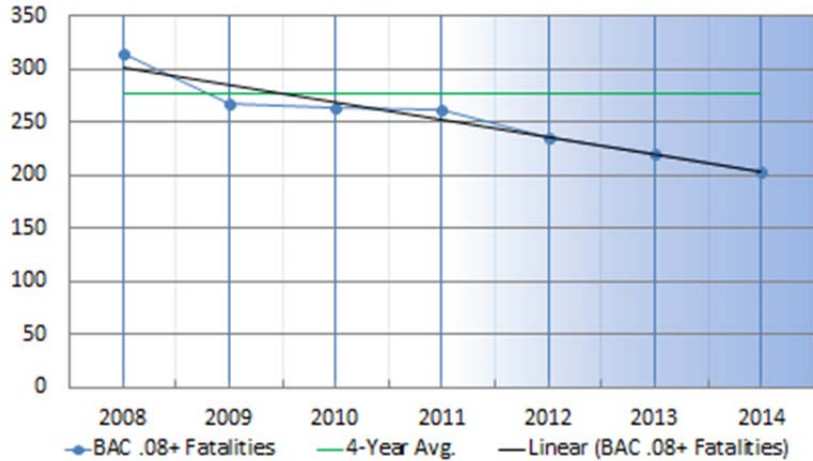


Based on the above analysis of the FARS crash data from 2008 through 2011 (shaded area is projected), the goal for calendar year 2014 is a reduction from the 402 baseline to 375 unrestrained occupant fatalities. See General Considerations Item 4.

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

2008	2009	2010	2011	Goal
314	267	264	261	250

Number of Fatalities involving a Driver with a BAC .08 and Above

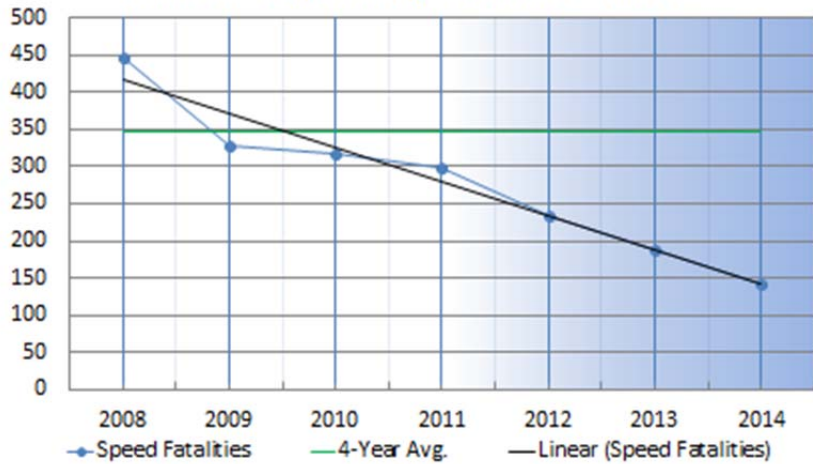


Based on the above analysis of the FARS crash data from 2008 through 2011 (shaded area is projected), the goal for calendar year 2014 is a reduction from the 277 baseline to 250 fatalities involving a driver with a BAC .08 and above. See General Considerations Item 4.

C-6) Number of speeding-related fatalities (FARS)

2008	2009	2010	2011	Goal
447	327	316	298	280

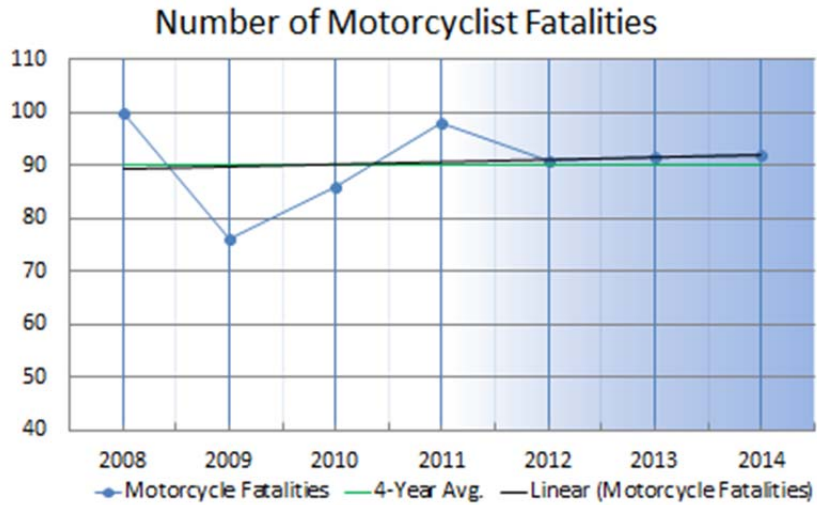
Number of Speeding-Related Fatalities



Based on the above analysis of the FARS crash data from 2008 through 2011 (shaded area is projected), the goal for calendar year 2014 is a reduction from the 347 baseline to 280 speed-related fatalities. See General Considerations Item 4.

C-7) Number of motorcyclist fatalities (FARS)

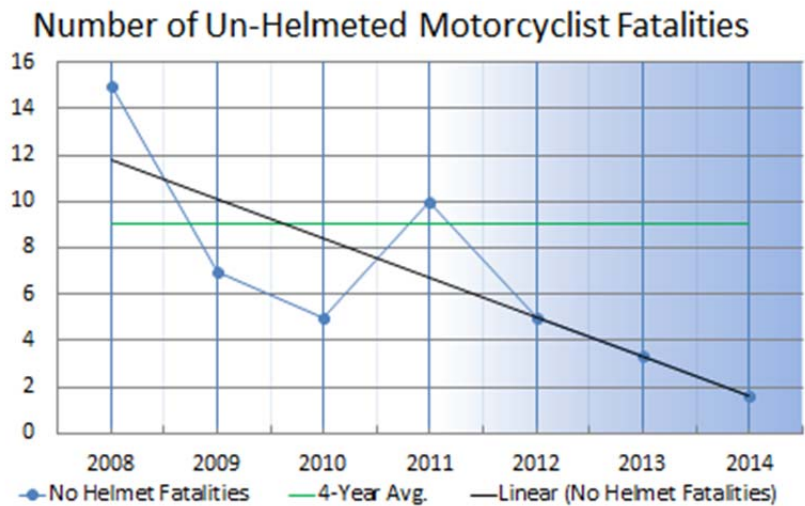
2008	2009	2010	2011	Goal
100	76	86	98	90



Based on the above analysis of the FARS crash data from 2008 through 2011 (shaded area is projected), the goal for calendar year 2014 is the maintenance of the current 90 motorcycle fatality baseline. See General Consideration 6.

C-8) Number of un-helmeted motorcyclist fatalities (FARS)

2008	2009	2010	2011	Goal
15	7	5	10	8



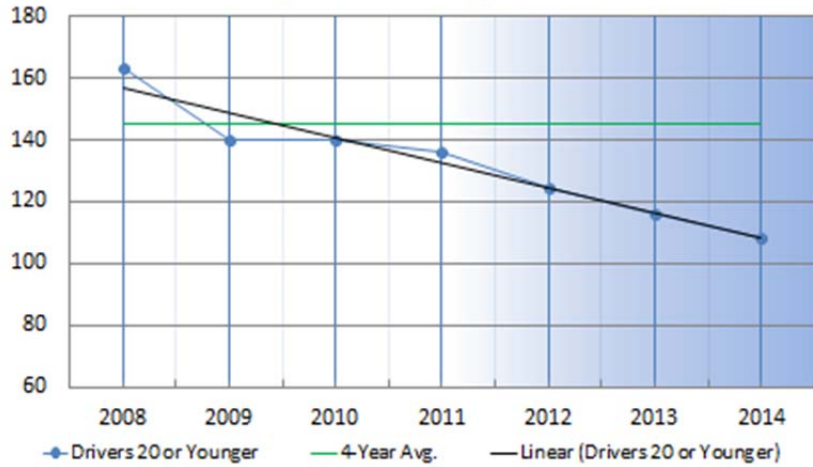
Based on the above analysis of the FARS crash data from 2008 through 2011 (shaded area is projected), the goal for calendar year 2014 is a reduction from the 9 baseline to 8 fatalities un-helmeted motorcyclists. See General Considerations Item 4.



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

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>Goal</u>
163	140	140	136	130

Number of Drivers Age 20 or Younger involved in a Fatal Crash

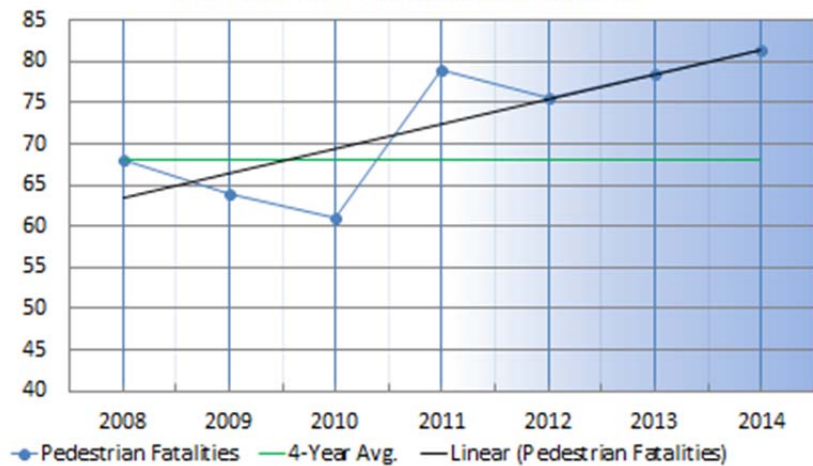


Based on the above analysis of the FARS crash data from 2008 through 2011 (shaded area is projected), the goal for calendar year 2014 is a reduction from the baseline of 145 to 130 fatalities. See General Considerations Item 4.

C-10) Number of pedestrian fatalities (FARS)

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>Goal</u>
68	64	61	79	64

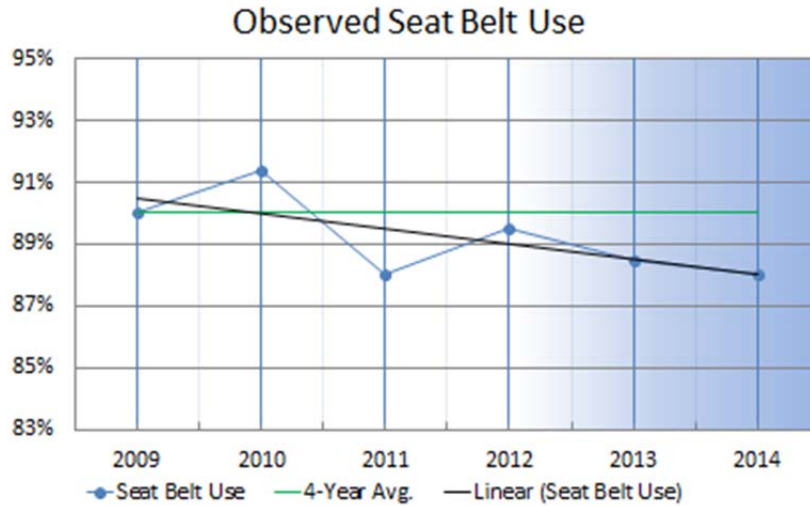
Number of Pedestrian Fatalities



Based on the above analysis of the FARS crash data from 2008 through 2011 (shaded area is projected), the goal for calendar year 2014 is a reduction from the baseline of 68 to 64 pedestrian fatalities. See General Considerations Item 7.

B-1) The observed seat belt use for passenger vehicles, front seat outboard occupants (survey).

<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>Goal</u>
90.0%	91.4%	88.0%	89.5%	90.5%

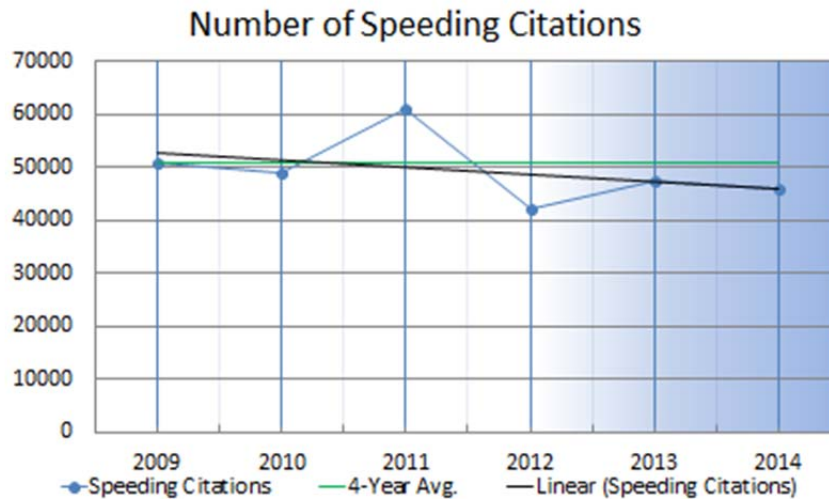


Based on the above analysis of the Alabama seatbelt survey data from 2008 through 2012 (shaded area is projected), the goal for calendar year 2014 is an increase from the baseline of 89.72 to 90.50% seat belt use. See General Considerations Item 8.

### Traffic Safety Activity Measures (2014)

#### Number of speeding citations

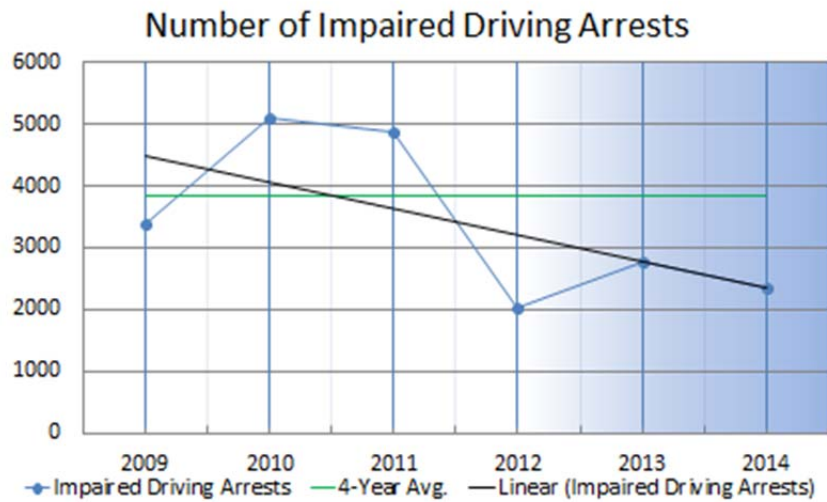
<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>Goal</u>
50,693	49,003	61,054	42,067	45,000



Based on the above analysis of the Alabama citation data from 2009 through 2012 (shaded area is projected), the goal for calendar year 2014 is to maintain at least 45,000 speeding citations, a slight, but realistic reduction from the baseline of 50,704. See General Consideration Item 9.

### Number of impaired driving arrests

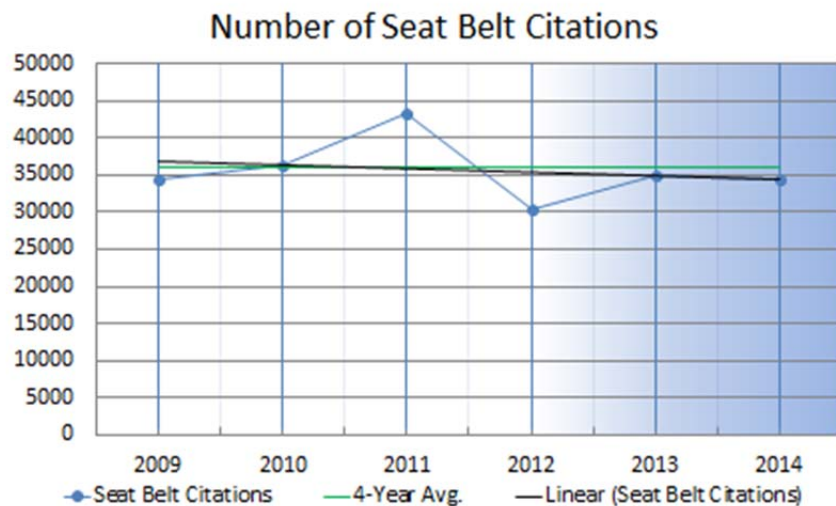
2009	2010	2011	2012	Goal
3,374	5,108	4,867	2,041	3,500



Based on the above analysis of the Alabama citation data from 2009 through 2012 (shaded area is projected), the goal for calendar year 2014 is to maintain at least 3,500 impaired driving arrests, a slight but realistic reduction from the baseline of 3,848. See General Consideration Item 9.

### Number of seat belt citations

2009	2010	2011	2012	Goal
34,328	36,341	43,384	30,425	36,500



Based on the above analysis of the Alabama citation data from 2009 through 2012 (shaded area is projected), the goal for calendar year 2014 is to maintain at least 36,500 speeding citations, a slight increase from the baseline of 36,120. See General Consideration Item 9.

## Overall Program Goals

The overall strategic program goals follow:

*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 894, 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 25<sup>th</sup> year it amounts to 4% of the previous year.

Calendar year 2006 was the record high in Alabama for traffic fatalities, with a total of 1209. Between 2007 and 2011, there was a reduction of 1353 fatalities over that five-year time period (271 fatalities saved per year). While no one in the traffic safety community believes that this rate of reduction (6% per year) can be sustained indefinitely, every effort will be made to sustain these new lower fatality counts and reduce them even further. Much of the large reduction was due to a recession in the economy coupled with higher fuel prices. These economic hardships tended to have a much higher impact on unsafe drivers than on the average driving public, for the following reasons:

- They would impact young drivers, economically disadvantaged with older less crashworthy vehicles, and traffic on county roads much more than professional drivers who typically put most of their mileage on safer roadways;
- It would have 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; and
- The economy placed a much higher premium on slower speeds to conserve fuel.

While the goal of sustaining an 5% per year reduction in fatalities is unrealistic, it is not unrealistic to believe that we can sustain the current numbers and rate, and continue to reduce them at the modest rate of 2% per year.

The number of hotspots will continue to be monitored (as seen below in Table 2). By focusing on two of the biggest killers (speed and impaired driving crash hotspots), the goal of reducing the fatality count and rate should be achievable. The criteria used to find the number of hotspots and the calculation of the rate will not change between the years in order to lend consistency in the total number of hotspots found for the State.

**Table 2. Number of Hotspots for Three-Year Periods**

<b>Fiscal Year</b>	<b>Calendar Year Data Used</b>	<b>Speed Hotspots</b>	<b>Impaired Driving Hotspots</b>	<b>Total Number of Hotspots</b>
2008	2004-2006	120	218	338
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

As the State works to reduce the fatality rate by reducing the number of hotspots meeting the fixed criteria, a statewide effort will continue to focus traffic safety funding on hotspot locations. By doing this, every possible action will be taken to bring these numbers down in the coming years. The change in the number of hotspots found (using identical search criteria) in each year is being monitored. A slight drop in the total number of hotspots was seen between the three-calendar year periods ending 2006 and 2007, and a more significant drop in the total was seen between 2007 and 2008. The largest drop of all was seen between FY 2011 and FY 2012, and the trend has continued through the data used for the FY 2013 HSP planning effort. There was an increase in the data used for the FY 2014 HSP.

**General Strategy:** To require the CTSP Coordinators to focus their plans primarily on the speed and impaired driving hotspot locations identified for their respective regions along with considerable attention also to occupant protection deficiency hot spots. 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 2001-2012. These statistics should be referenced as overall goals and strategies are discussed and determined.

**Table 3a. Summary of All Crashes – CY 2001-2006 Alabama Data**

<b>Performance Measures</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Fatal Crashes	902	931	899	1033	1013	1074
Percent Fatal Crash	0.67	0.66	0.64	0.71	0.70	0.77
Injury Crashes	29,771	30,922	30,748	31,856	31,335	30,527
Percent Injury Crashes	22.26	22.02	21.8	21.77	21.76	21.84
PDO Crashes	103,066	108,583	109,420	113,469	111,645	108,179
Percent PDO Crashes	77.07	77.32	77.57	77.53	77.54	77.39
Total	133,739	140,436	141,067	146,358	143,993	139,780

**Table 3b. Summary of All Crashes – CY 2007-2012 Alabama Data**

<b>Performance Measures</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Fatal Crashes	1010	886	775	793	814	813
Percent Fatal Crash	0.75	0.72	0.63	0.61	0.64	.634
Injury Crashes	28,295	25,613	27,675	29,051	27,687	27,529
Percent Injury Crashes	20.92	20.66	22.37	22.63	21.69	21.43
PDO Crashes	105,951	97,469	95,291	98,545	99,167	99,965
Percent PDO Crashes	78.33	78.62	77.01	76.76	77.68	77.93
Total	135,256	123,968	123,740	128,384	127,668	128,307

Tables 4a and 4b summarize all Speed and Impaired Driving hotspots for FY 2008 through FY 2014. Past years data are included here in order to allow for comparison within each region. In future years, data will continue to be added to this table to track the progress made in reducing the number of hotspots across the state and within individual regions.

**Table 4a. Speed Hotspot Listing by Region**

Region	Speed Hotspots for Fiscal Years								% of Total Hotspots (2014)
	2008	2009	2010	2011	2012	2013	2014		
Birmingham	25	35	26	21	16	15	14	29.78%	
North East	11	17	17	11	13	8	10	21.28%	
North	10	18	17	16	9	5	4	8.51%	
Mobile	15	15	14	13	9	4	4	8.51%	
East	14	16	17	13	8	3	9	19.15%	
Central	15	12	15	8	7	3	4	8.51%	
South East	11	7	6	5	2	3	1	2.13%	
South West	5	10	4	4	2	1	0	0.00%	
West	14	16	14	8	1	2	1	2.13%	
<b>TOTAL</b>	<b>120</b>	<b>146</b>	<b>130</b>	<b>99</b>	<b>67</b>	<b>45</b>	<b>47</b>	<b>100.00%</b>	

**Table 4b. Impaired Driving Hotspot Listing by Region**

Region	Impaired Driving Hotspots for Fiscal Years								% of Total Hotspots (2014)
	2008	2009	2010	2011	2012	2013	2014		
Birmingham	37	32	27	34	41	23	35	19.55%	
North East	42	32	27	30	54	36	47	26.25%	
North	22	15	17	24	24	15	15	8.38%	
Mobile	52	48	47	40	49	25	35	19.55%	
East	13	11	14	9	7	3	2	1.12%	
Central	23	26	27	25	34	21	26	14.53%	
South East	5	2	6	15	17	6	2	1.12%	
South West	4	6	5	6	4	2	2	1.12%	
West	20	19	21	18	22	13	15	8.38%	
<b>TOTAL</b>	<b>218</b>	<b>191</b>	<b>191</b>	<b>201</b>	<b>252</b>	<b>144</b>	<b>179</b>	<b>100.00%</b>	

## FY 2014 Strategies and Performance Goals

### Strategies

The following outlines the strategies to be applied during FY 2014:

- AOHS is charged by the Governor with the responsibility for implementing the state's highway safety efforts to reduce traffic deaths, injuries and crashes; as such, they will continue to perform the overall administrative functions for the programs and projects implemented.
- The nine Community Traffic Safety Programs (CTSP) projects are seen to be an essential element in maintaining distributed governance over the statewide traffic safety program, and they will be maintained, including the support of the CTSP Coordinators and the administrative support for their offices.
- The Center for Advanced Public Safety (CAPS) is seen to be vital in providing 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 nine local Hotspot Special Traffic Enforcement Program (STEP) projects, one within each of the CTSP regions. Additionally, a statewide STEP project will be conducted in conjunction with the Alabama Department of Public Safety (DPS). The efforts of all CTSP selective enforcement projects should be focused on hotspot locations. By focusing on the hotspot locations, every effort will be taken to reduce speed and impaired driving crashes, and in so doing, reduce the fatality rate for the state.
- Continue the Law Enforcement Liaison (LEL) programs statewide. Beginning in FY 2007, this program was absorbed by the regional CTSP offices and was funded through the Community Traffic Safety Projects. This funding arrangement will continue in FY 2014.
- Participate in national "Click It or Ticket" campaign on the statewide level.
- Conduct statewide "Drive Sober or Get Pulled Over" campaign as a part of the national campaign.
- Conduct sustained enforcement for seat belts, impaired driving, and speeding.

### Hotspot Performance Measures and Goals

*Performance Measure:* Since the criteria for determining the hotspots has not changed over the years, a smaller number of hotspots found would indicate progress in reducing crashes in the selective enforcement areas. These gains would be leveraged over the entire state as the effects of increased enforcement are not limited to the target roadway segments. As the hotspots continue to be tracked in the future, more columns will be added to the table below to track the number of hotspots that were found statewide according to the fixed criteria. The following table indicates how the performance measures for Speed and Impaired Driving hotspots have changed since 2006.

Performance Measure Hotspot Type	Three Year Ending Calendar Year							AVERAGE
	2006	2007	2008	2009	2010	2011	2012	
Speed	120	142	123	93	63	45	47	90
Impaired Driving	218	191	190	194	143	144	179	180
TOTAL	338	333	313	287	206	189	226	270

*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 2014 is 45 from 47 in 2012.
- The goal for the number impaired driving hotspots for 2014 is 175 from 179 in 2012.

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.

### 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:

<b>Performance Measures</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Impaired Driving Fatal Crashes	219	214	203	228	212	237
Impaired Driving Injury Crashes	3,066	3,078	2,878	2,876	2,948	3,042
Total	3,285	3,292	3,081	3,104	3,160	3,279

<b>Performance Measures</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Impaired Driving Fatal Crashes	257	212	237	210	217	186
Impaired Driving Injury Crashes	2,719	2,450	2,548	2,798	2,647	2,661
Total	2,976	2,662	2,785	3,008	2,864	2,847

*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 2014 is 164 from 166 in 2012.
- The goal for the number of impaired driving injury crashes for 2014 is 2,595 from 2,614 in 2012.

Consistently with the way that goals for impaired driving crashes have been set in the past, the goals for the coming year was set based upon five years of data (2008-2012). This will allow for consistent year to year monitoring of the goals.

### Speed Related Crash Performance Measures and Goals

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

<b>Performance Measures</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Speed Fatal Crashes	256	298	293	317	331	370
Speed Injury Crashes	3,119	3,253	3,208	3,325	3,502	3,712
Total	3,375	3,551	3,501	3,642	3,833	4,082



<b>Performance Measures</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Speed Fatal Crashes	359	338	221	212	188	176
Speed Injury Crashes	3,392	2,958	2,299	1,883	1,832	1,779
Total	3,751	3,296	2,520	2,095	2,020	1,955

*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 2014 is 181 from 205 in 2012.
- The goal for the number of speed injury crashes for 2014 is 1,750 from 1,780 in 2012.

Consistently with the way that goals for speed crashes have been set in the past, the goals for the coming year was set based upon five years of data (2008-2012). This will allow for consistent year to year monitoring of the goals.

Occupant Protection Performance Measures and Goals

*Performance Measures:* The performance measures for both child safety seat and overall restraint use are obtained from annual surveys conducted by the Alabama Department of Public Health. The Safety Belt Usage Rate is obtained immediately following the “Click It or Ticket” campaign in June 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 the Alabama Department of Public Health. The state will fully support the National Click It or Ticket efforts by running a statewide program that should have a positive impact on restraint use.

<b>Performance Measures</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Safety Belt Usage Rate	79.40%	78.80%	77.40%	80.00%	81.90%	82.90%
Child Safety Seat Usage Rate	77.00%	89.40%	87.00%	82.90%	91.60%	88.00%

<b>Performance Measures</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Safety Belt Usage Rate	82.30%	86.10%	90.00%	91.43%	88.00%	89.50%
Child Safety Seat Usage Rate	92.30%	88.20%	94.91%	93.12%	95.83%	93.00%

*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 2013 is from the baseline of 89.5% in CY 2012 to 91.0% in 2014.
- The goal for the statewide child safety seat usage that will be measured during CY 2013 is from the baseline 93.00% in CY 2012 to 94.0% in 2014.

## **Administrative Goals**

### **Personnel:**

- To ensure that the AOHS staff (which includes the Governor's Representative/State Coordinator, Highway Safety Program Manager and one Program Manager) has access to information needed to manage a NHTSA compliant Highway Safety Program, they must attend the appropriate meetings and training sessions. AOHS must be represented at the NHTSA Region 4 Colonel's Conference.
- The AOHS staff, and all CTSP Coordinators/LELs must attend the NHTSA sponsored Annual LEL Conferences. These personnel are mandated to attend these meeting so they are available to discuss regional and state issues and highway safety initiatives for the upcoming year.
- The AOHS staff must be represented at the annual Lifesaver's National Conference on Highway Safety Priorities and/or the Governor's Highway Safety Association meetings. These representatives shall be present so they can 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, Data-Driven Approaches to Crime and Traffic Safety (DDACTS), Nighttime Seat Belt Enforcement, and necessary traffic safety training.

### **Traffic Records**

#### *Goals:*

- 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 pinpoints and targets the exact locations of speed and impaired driving hotspots for each region in the state.
- To administer the Section 408 and 405c funded projects so that the comprehensive traffic records plan developed to support those efforts is brought to fruition.
- 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.

#### *Strategies:*

- Provide at least one statewide training session for CTSP Coordinators and LELs in which the basics of CARE information mining will be taught in terms of application to local problem identification and evaluation.
- Initiate systems studies to finalize and obtain approval for the recently developed MMUCC-compatible crash report form, and
- To fully deploy and assure the use of the developed in-vehicle crash data entry and data uploading system (e-crash) and the electronic citation system (eCite).

The remainder of the strategies is organized according to the various projects that are in the plan for FY 2014. According to the NHTSA web site, "Data-Driven Approaches to Crime and Traffic Safety (DDACTS) is a law enforcement operational model supported by a partnership among the Department of Transportation's National Highway Traffic Safety Administration and two agencies of the Depart-

ment of Justice: the Bureau of Justice Assistance and the National Institute of Justice. DDACTS integrates location-based crime and traffic crash data to determine the most effective methods for deploying law enforcement and other resources. Drawing on the deterrent value of highly visible traffic enforcement and the knowledge that crimes often involve motor vehicles, the goal of DDACTS is to reduce crime, crashes, and traffic violations across the country.”

Alabama has been developing a foundation to support the future use of DDACTS, as evidenced by the participation of the Alabama Criminal Justice Information Center (ACJIC) on the Traffic Records Coordinating Committee (TRCC). The integration of crime and traffic safety countermeasures was first illustrated by the integration of traffic citation and crash spatial data so that better allocations of law enforcement resources could be made. While saving lives from traffic crashes will continue to be the primary goal of Section 408 funding, the extension of this concept into deployments that impact criminal activity will impact the problem statements given below. The theory here, which has the full support of Alabama, is that the total impact on both crime and traffic safety will increase by optimizing all law enforcement over both of these mission types.

In addition, the Traffic Records Coordinating Committee has also recognized problems in the emergency medical services (EMS) areas, which further provides another stem of integration, taking the DDACTS concept of mutual support to an even higher level. In all of these activities, traffic safety information systems are being used to identify optimal countermeasures through problem identification, and then to design optimal tactical approaches to implementing these countermeasures by specifying the locations and other demographic that are most effective in saving lives and reducing injury.

The areas in the state’s traffic records information system that are most in need of innovation in order to maximize the value of information dedicated to the reduction in fatalities and severe injuries, and to advance the DDACTS approach are given below. The Center for Advanced Public Safety (CAPS) at the University of Alabama has provided some of the most advanced traffic safety information systems that exist, and CAPS stands ready to continue to update these systems with a series of projects during the 2014 fiscal year. These fall into the following general areas that address the problems that are discussed with each:

- *Crash location deficiencies.* The recent traffic records assessment noted the development of a “... mechanism to provide the ... software for all law enforcement agency patrol vehicles so GIS location data can be collected universally for all crashes. If successful, this eliminates the requirement for the officer to provide link-node data on the eCrash report.” The problem in this regard has to do with the accuracy and timeliness of crash location information. Current methods were developed in 1982. The recent eCrash upgrade did nothing but take the old method of physical map lookup and enable officers to enter that data directly into the record; it did nothing to improve the process that is clearly overly time consuming and fraught with the potential for error. To address this problem, we are developing new mapping software to support the more accurate acquisition of precise location information, and deploying this software in conjunction with eCrash to increase the quality of the location information obtained from the field. This project is in progress, and the software will continued to be deployed during FY 2014.
- *DPH trauma data and ADVANCE enhancements.* The recent traffic records assessment recommended that we “develop annual reports on trauma and motor vehicle crashes to be available on the ADPH website.” A prototype system for the EMSIS ambulance run data has proven its value in providing valuable information. However, there are a number of enhancements that will make these data sources far more productive of useful information. The information needs to be made more available, and the user base needs to be expanded. The linkage between the ambulance run data and the trauma data is in its very first stages, which has

demonstrated its potential use, but this still needs to be brought to fruition.

- *EMS run data entry software.* The state is expending a significant amount of money annually on a system that is barely adequate. The ADPH has determined that it would be quite beneficial for the state if a MOVE-type of approach could be applied to capture this data during the actual EMS unit run. Issues need to be addressed regarding the continued support for the National Emergency Medical Services Information System (NEMSIS) standards. The need to integrate EMS run data with crash data also continues to be an issue; such integration is needed to effectively study crash injury outcomes (e.g., effectiveness of restraints). The development of field EMS reporting software will continue during FY 2014.
- *CARE enhancements.* The recent traffic records assessment recommended that we “expand the use of the CARE warehouse to include other government users and researchers.” Progress has been made in establishing CARE scripts, i.e., essentially programs for standard report types that essentially “captures” a series of CARE commands and save them into a program for future use. This progress needs to be continued into beta testing and further enhancement of these capabilities, since they are currently not available to the CARE user base. A special location type exception reports that is similar to those currently being used in the Early Warning programs also needs to be completed and deployed.
- *Department of Public Safety (DPS) paperless operation completion.* The recent traffic records assessment noted that: “Overall Alabama has experienced considerable growth throughout the State in the development and expansion of technology applications to move the State towards a paperless environment.” This move toward a paperless environment is leading to greater efficiencies in law enforcement, enabling a greater presence in the field, more time for actual enforcement, and a tremendous boost in morale to the field officers. The problem involves the many remaining reports that still need to be automated, e.g., the driver exchange form, stored vehicle and inventory report, consent to search form, abandoned vehicle form, and several others. During FY 2014 we will develop these reports and will continue to support the field deployment of the paperless office software.
- *Enforcement and Adjudication Log.* Currently, officers are spending significant time completing logs and providing data to both ALDOT and ADECA regarding the level of effort associated with special enforcement initiatives. This time is ineffective, as it directly detracts from time spent policing on the roadways. For this project, we will completely automate the production of effort logs, and support the electronic transfer of such logs to the appropriate reporting locations. The intent of this project is to eliminate the need for the officer to ever look at or spend *any* time completing a log or effort report. Instead, effort information is harvested from the MOVE environment and provided to the entities that need that information (such as supervisors and funding agencies). This major project will result in dramatic improvements in officer efficiency, and substantially increased time spent in meaningful policing activities.
- *Further eCrash rollout.* The recent traffic records assessment recommended that we “transition the remaining 9 law enforcement agencies to either the eCrash system or provide technical assistance to their RMS vendors to accept their crash report format into eCrash as soon as possible.” There are still a number of major agencies that are not submitting their crash data in an eCrash compliant format resulting in not only duplicate data entry (with its accompanying error-prone issues), but also the inability to use these data due to the need for converting these data to their eCrash counterparts. We will continue to support the effort to achieve 100% utilization of this system.
- *Safe Home Alabama (SHA) Web site.* The recent traffic records assessment noted that “the TRS [Traffic Records System] should be designed to give the public or general non-government user reasonable access to data files, analytic results, and resources, but still meet State and federal privacy and security standards....” and they further noted that “...

*SafeHomeAlabama* ... will serve as a clearing house for motor vehicle crash data, safety information, research, and training.” The SafeHomeAlabama.gov web portal includes all state agencies; the legislature’s State Safety Coordinating Committee, and all known service groups and educational institutions with formal traffic safety programs. Its goal is 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. SHA currently has 30 volunteer Associates, 73 pages, 332 external links, 91 referenced documents, and it is being updated typically with several updates per day. While tremendous progress has been made in making this site truly comprehensive, new technology needs to be applied to upgrade the entire web site and to make updates easier to accomplish. A major effort will be required in getting the general public involved and participating in this web site.

## **Legislative Goals**

AOHS will work with the State Safety Coordinating Committee (SSCC). Since the administration changed, the Governor did not appoint a chairman for this committee. AOHS plans to be active in establishing legislative goals for FY 2014 once the Governor has appointed the SSCC chairman.

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

[http://www.safehomealabama.gov/GovAgencies/ALLegislature\(SSCC\).aspx](http://www.safehomealabama.gov/GovAgencies/ALLegislature(SSCC).aspx).

## **HOTSPOT LISTINGS AND REGIONAL REPORTS**

All of the counties in the state were grouped together to form regions for the purpose of identifying problem locations within their region that need attention. The designated regions are as follows:

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

In order to determine the hotspots for each region, several statewide reports were generated. Through the use of the 2010-2012 crash data for the State of Alabama, the CARE program and the ESRI Arc GIS suite of programs, a complete listing and illustration of problem crash locations (or hotspots) throughout the state was developed. While the focus on Speed and Impaired Driving hotspots crashes in this plan has already been discussed, it was important to focus on this type of crash on all types of roadways within the state. With the help of the CARE program, it was possible to identify hotspots in four major categories. These were: (1) hotspots on the Interstate, (2) hotspots on Federal or State Routes, (3) hotspots at non-mileposted intersections (for Impaired Driving Crashes only) and (4) hotspots on non-mileposted segments. By doing this, a total of 47 Speed Hotspots and 179 Impaired Driving Hotspots around the state were identified. The reports generated detailing this information for the entire state included:

1. State of Alabama Fatalities Bar Graph (2006-2012)
2. 2012 Alabama Fatalities by County and Region Map
3. Alabama Fatalities for State and Region (2006-2012)
4. 2012 Alabama Fatalities by Region and County
5. Top 21 Speeding Related Mileposted Interstate Crashes Map
6. Top 21 Speeding Related Mileposted Interstate Crashes Breakdown by Region
7. Top 21 Speeding Related Mileposted Interstate Crashes Listing
8. Top 24 Impaired Driving Related Mileposted Interstate Crashes Map
9. Top 24 Impaired Driving Related Mileposted Interstate Crashes Breakdown by Region
10. Top 24 Impaired Driving Related Mileposted Interstate Crashes Listing
11. Top 11 Speeding Related Mileposted State/Federal Route Crashes Map
12. Top 11 Speeding Related Mileposted State/Federal Route Crashes Breakdown by Region
13. Top 11 Speeding Related Mileposted State/Federal Route Crashes Listing
14. Top 25 Impaired Driving Related Mileposted State/Federal Route Crashes Map
15. Top 25 Impaired Driving Related Mileposted State/Federal Route Crashes breakdown by Region
16. Top 25 Impaired Driving Related Mileposted State/Federal Route Crashes Listing
17. Top 72 Impaired Driving Related Non-Mileposted Intersection Crashes Breakdown by Region
18. Top 72 Impaired Driving Related Non-Mileposted Intersection Crashes Listing
19. Top 15 Speeding Related Non-Mileposted Segment Crashes Breakdown by Region
20. Top 15 Speeding Related Non-Mileposted Segment Crashes Listing
21. Top 58 Impaired Driving Related Non-Mileposted Segment Crashes Breakdown by Region
22. Top 58 Impaired Driving Related Non-Mileposted Segment Crashes Listing
23. Hotspot Count and Totals by Region and County Map for All Hotspots
24. Hotspot Breakdown by Region for All Hotspots
25. Hotspot Count and Totals by Region and County Map for Interstate Hotspots Only
26. Hotspot Count Breakdown by Region for Interstate Hotspots Only
27. Hotspot Count and Totals by Region and County Map for Speeding Related Hotspots Only
28. Hotspot Count Breakdown by Region for Speeding Related Hotspots Only
29. Hotspot Count and Totals by Region and County Map for Impaired Driving Related Hotspots Only
30. 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 nine regions across the state. This information was formatted in the same way as the statewide reports but only included information on hotspots specific to their region. Regions were also not given copies of the Interstate Hotspots. The Interstate Hotspots will be covered by the Alabama Department of Public Safety, and they are not under the control of the nine CTSP Coordinators. These hotspot lists that each region received were no different than the statewide list, rather a subset of that list that applied only to the region in question. The reports provided on a regional basis were as follows:

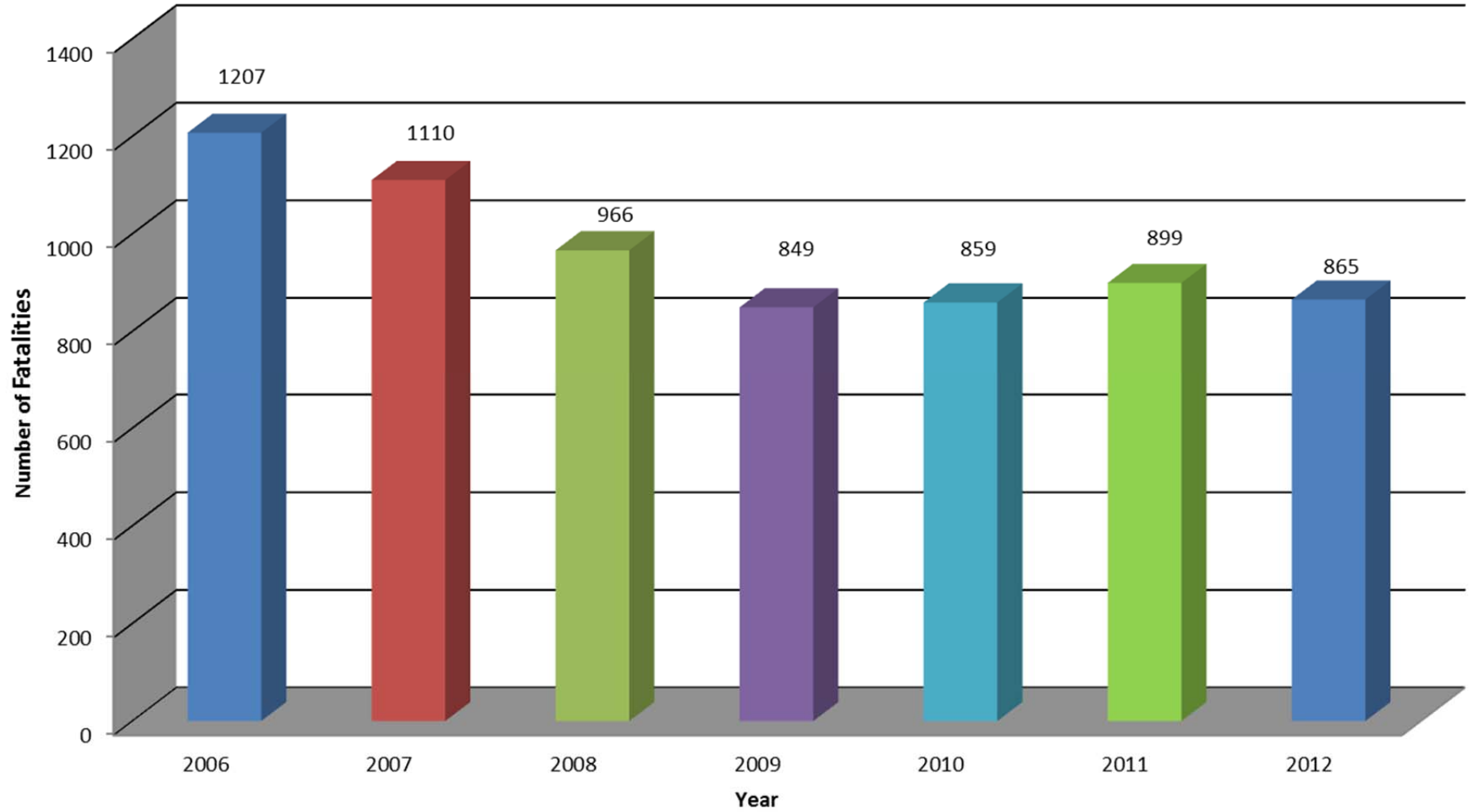
1. Regional Fatalities Bar Graph (2006-2012)
2. Top Speeding Related Mileposted State/Federal Route Crashes Map for Region
3. Top Speeding Related Mileposted State/Federal Route Crashes Listing for Region
4. Top Impaired Driving Related Mileposted State/Federal Route Crashes Map for Region
5. Top Impaired 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

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.

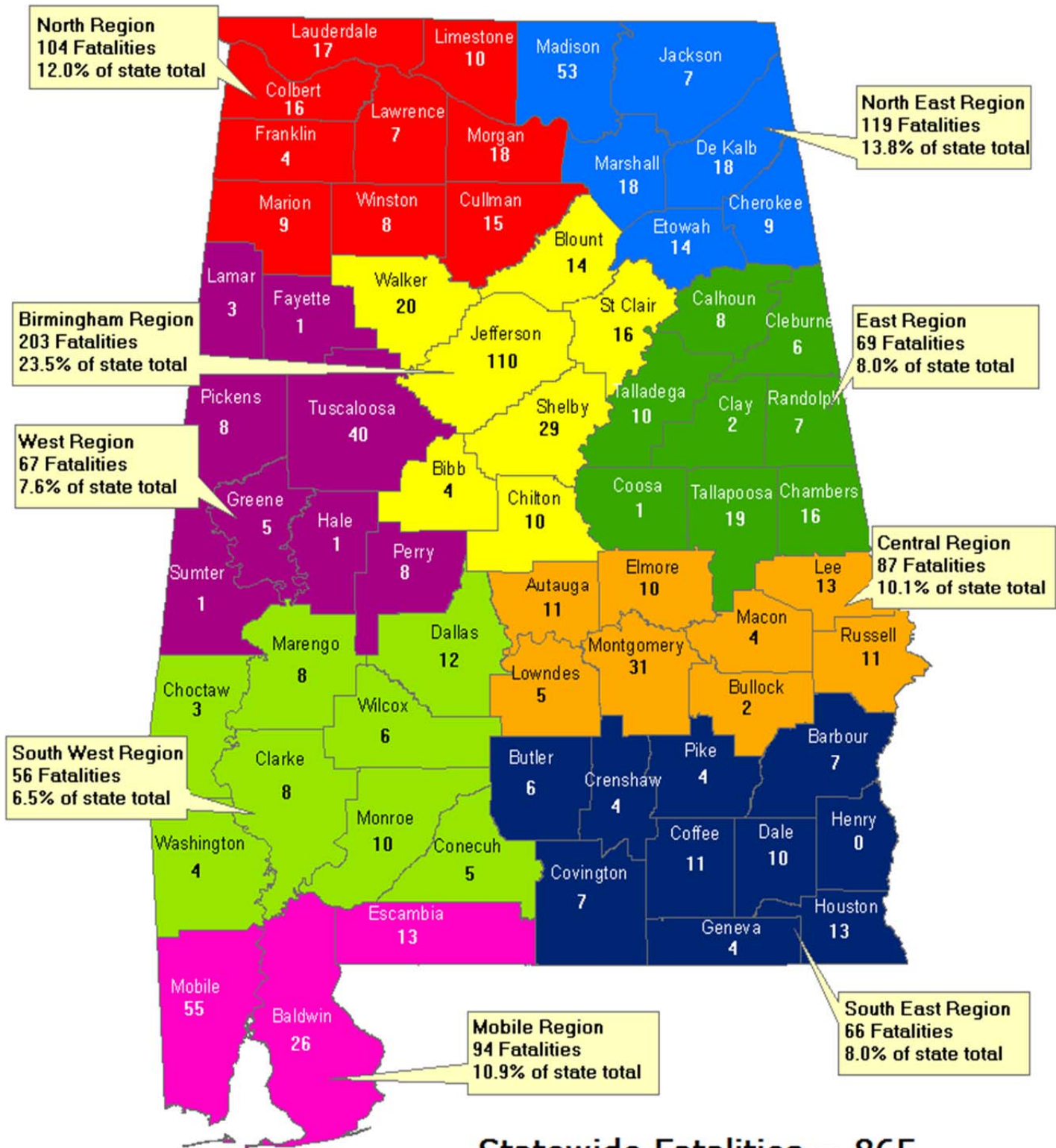
Once this information was provided to the CTSP Coordinators, they were instructed to focus their plans for the coming year on the Hotspot locations given in the reports for their region. Money distributed by the AOHS this year will focus completely on these areas within the region. By employing this method of funds distribution, a measurable effect on the two largest factors that cause crashes (speeding and impaired driving) should be seen. The same criteria used to identify the 47 Speeding Related Hotspots and 179 Impaired Driving Related Hotspots locations this year will be used in coming years. If funds are employed effectively and correctly, 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



# 2012 Fatalities in Alabama



**Statewide Fatalities = 865**

## State of Alabama Fatalities

<u>Year</u>	<u>Number</u>
2006	1207
2007	1110
2008	966
2009	849
2010	859
2011	899
2012	865

## State of Alabama Fatalities by Region

<u>Central</u>		<u>Mobile</u>		<u>South East</u>	
<u>Year</u>	<u>Number</u>	<u>Year</u>	<u>Number</u>	<u>Year</u>	<u>Number</u>
2006*	170	2006*	162	2006*	98
2007*	138	2007*	148	2007*	109
2008*	140	2008*	122	2008*	68
2009*	103	2009*	95	2009*	71
2010*	111	2010*	108	2010*	74
2011*	107	2011*	103	2011*	70
2012*	87	2012*	94	2012*	66

<u>East</u>		<u>North East</u>		<u>South West</u>	
<u>Year</u>	<u>Number</u>	<u>Year</u>	<u>Number</u>	<u>Year</u>	<u>Number</u>
2006*	94	2006*	164	2006*	71
2007*	83	2007*	128	2007*	53
2008*	75	2008*	119	2008*	65
2009*	82	2009*	115	2009*	46
2010*	67	2010*	104	2010*	54
2011*	63	2011*	108	2011*	55
2012*	69	2012*	119	2012*	56

<u>Birmingham</u>		<u>North</u>		<u>West</u>	
<u>Year</u>	<u>Number</u>	<u>Year</u>	<u>Number</u>	<u>Year</u>	<u>Number</u>
2006*	202	2006*	154	2006*	92
2007*	221	2007*	138	2007*	92
2008*	195	2008*	117	2008*	65
2009*	163	2009*	110	2009*	64
2010*	182	2010*	101	2010*	58
2011*	217	2011*	118	2011*	58
2012*	203	2012*	104	2012*	67

\* - The 2006 data reflects a realignment of the regions as discussed in earlier sections of the Highway Safety Plan. Several counties were moved to different regions in order to help distribute the hotspots and fatalities more evenly. This realignment continues in 2007, 2008, 2009, 2010, 2011 and 2012.

## 2012 Alabama Fatalities

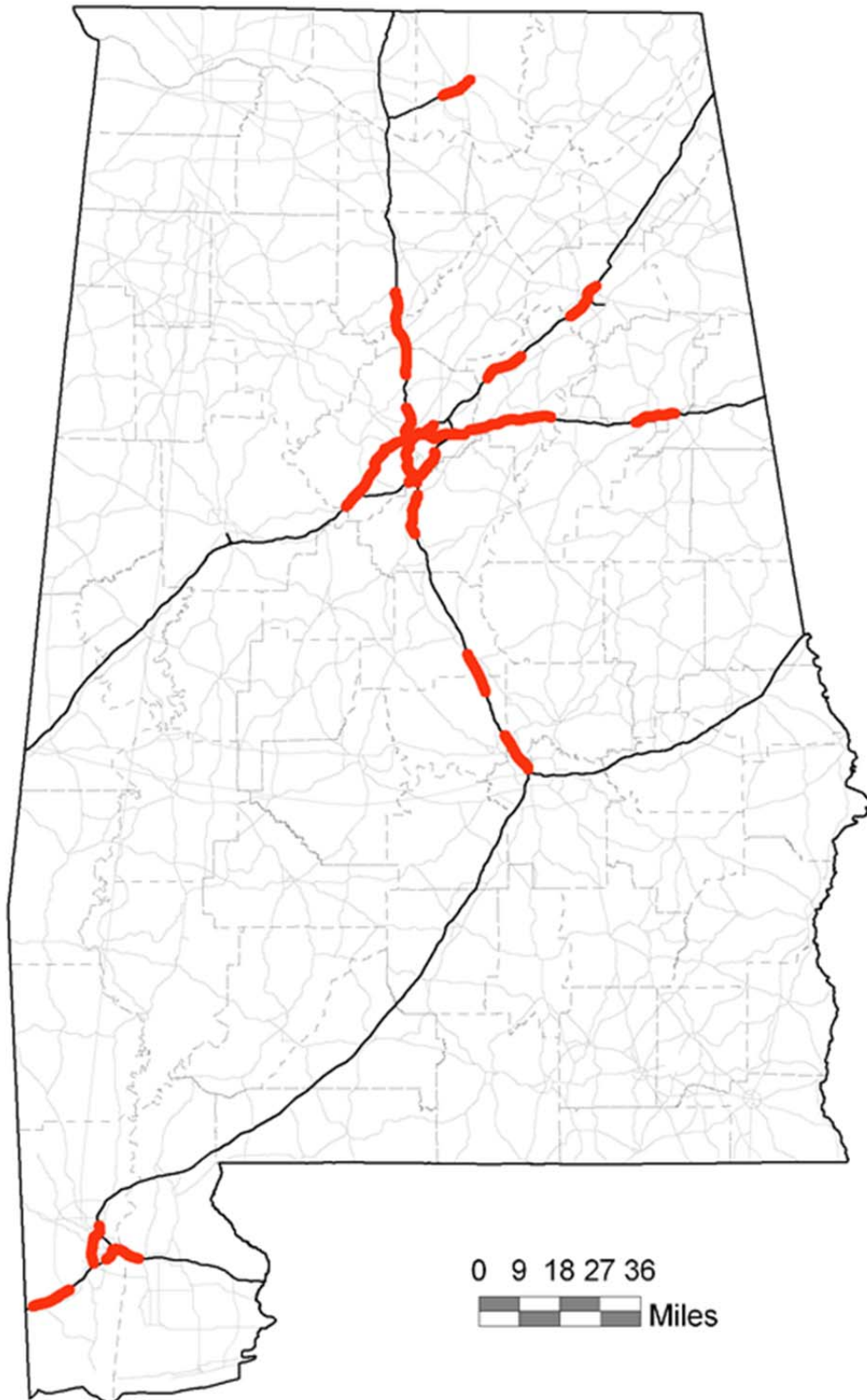
### Fatalities by Region

<u>Region</u>	<u>Number of Fatalities</u>
Birmingham	203
North East	119
North	104
Mobile	94
Central	87
East	69
West	67
South East	66
South West	56
<b>TOTAL</b>	<b>865</b>

### Fatalities by County

<u>County</u>	<u># of Fatalities</u>	<u>County</u>	<u># of Fatalities</u>	<u>County</u>	<u># of Fatalities</u>
Jefferson	110	Limestone	10	Choctaw	3
Mobile	55	Monroe	10	Lamar	3
Madison	53	Tallapoosa	10	Bullock	2
Tuscaloosa	40	Cherokee	9	Clay	2
Montgomery	31	Marion	9	Coosa	1
Shelby	29	Calhoun	8	Fayette	1
Baldwin	26	Clarke	8	Hale	1
Walker	20	Marengo	8	Sumter	1
Talladega	19	Perry	8	Henry	0
DeKalb	18	Pickens	8	<b>TOTAL</b>	<b>865</b>
Marshall	18	Winston	8		
Morgan	18	Barbour	7		
Lauderdale	17	Covington	7		
Chambers	16	Jackson	7		
Colbert	16	Lawrence	7		
Saint Clair	16	Randolph	7		
Cullman	15	Butler	6		
Blount	14	Cleburne	6		
Etowah	14	Wilcox	6		
Escambia	13	Conecuh	5		
Houston	13	Greene	5		
Lee	13	Lowndes	5		
Dallas	12	Bibb	4		
Autauga	11	Crenshaw	4		
Coffee	11	Franklin	4		
Russell	11	Geneva	4		
Chilton	10	Macon	4		
Dale	10	Pike	4		
Elmore	10	Washington	4		

# Top 21 Mileposted Interstate Locations (10 miles in length) in Alabama with 8 or More Speeding Related Crashes Resulting in Injury or Fatality



## **Top 21 Mileposted Interstate Locations (10 miles in length) in Alabama with 8 or More Speeding Related Crashes Resulting in Injury or Fatality**

### **Regional Breakdown**

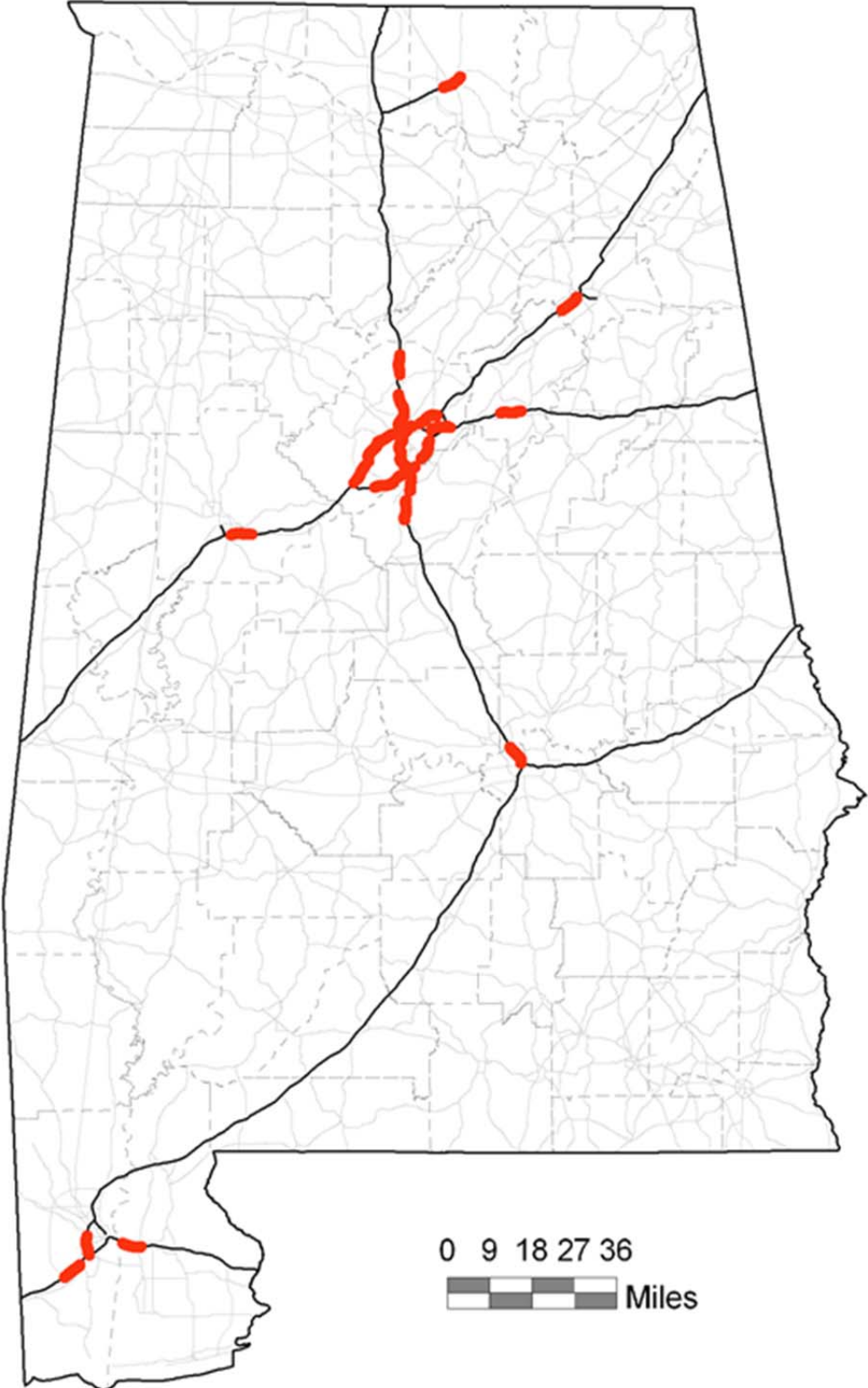
Birmingham Region	61.90%
Mobile Region	14.29%
North East Region	9.52%
East Region	4.76%
Central Region	4.76%
North Region	4.76%
South West Region	0.00%
West Region	0.00%
South East Region	0.00%

## Top 21 Mileposted Interstate Locations (10 Miles in Length) in Alabama with 8 or More Speeding Related Crashes Resulting in Injury or Fatality

The map that corresponds to this data and marks these Hotspots is titled "Top 21 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	Crashes/MVM	MVM	ADT	Agency ORI
1	Calhoun	Rural Calhoun	I-20	182.4	192.4	10	3	7	35	0.01	678.54	37180	Alabama DPS - Jacksonville Post
2	Mobile	Mobile	I-65	1	11	13	3	10	29.23	0.01	1411.35	77334	Mobile Police Department
3	Etowah	Rural Etowah	I-59	176.5	186.5	8	0	8	28.75	0.02	360.75	19767	Alabama DPS - Gadsden Post
4	Saint Clair	Rural St. Clair	I-20	152	162	8	1	7	28.75	0.01	861.58	47210	Alabama DPS - Birmingham Post
5	Jefferson	Birmingham	I-59	123.2	133.2	22	3	19	28.18	0.01	2241.34	122813	Birmingham Police Department
6	Jefferson	Rural Jefferson	I-65	277.5	287.5	8	1	7	27.5	0.01	855.14	46857	Alabama DPS - Birmingham Post
7	Saint Clair	Rural St. Clair	I-59	151.3	161.3	8	2	6	27.5	0.02	425.21	23299	Alabama DPS - Birmingham Post
8	Jefferson	Hoover	I-65	249.1	259.1	11	1	10	27.27	0	2257.82	123716	Hoover Police Department
9	Jefferson	Rural Jefferson	I-20	130.5	140.5	9	2	7	26.67	0.01	1104.6	60526	Alabama DPS - Birmingham Post
10	Chilton	Rural Chilton	I-65	194	204	10	1	9	26	0.02	602.05	32989	Alabama DPS - Montgomery Post
11	Jefferson	Birmingham	I-59	112.5	122.5	15	2	13	26	0.01	1331.19	72942	Birmingham Police Department
12	Elmore	Rural Elmore	I-65	172.3	182.3	12	2	10	25	0.01	998.31	54702	Alabama DPS - Montgomery Post
13	Jefferson	Bessemer	I-59	101.9	111.9	8	0	8	25	0.01	947.72	51930	Bessemer Police Department
14	Cullman	Rural Cullman	I-65	288	298	11	1	10	24.55	0.02	719.63	39432	Alabama DPS - Decatur Post
15	Mobile	Rural Mobile	I-10	2	12	9	1	8	24.44	0.01	894.12	48993	Alabama DPS - Mobile Post
16	Jefferson	Birmingham	I-65	259.4	269.4	10	0	10	24	0.01	1439.18	78859	Alabama DPS - Birmingham Post
17	Saint Clair	Rural St. Clair	I-20	141.9	151.9	8	0	8	23.75	0.01	1010.96	55395	Alabama DPS - Birmingham Post
18	Shelby	Pelham	I-65	236	246	10	0	10	23	0.01	1338.22	73327	Alabama DPS - Birmingham Post
19	Mobile	Mobile	I-10	23.8	33.8	8	0	8	21.25	0.01	1175.41	64406	Mobile Police Department
20	Jefferson	Rural Jefferson	I-459	13.4	23.4	8	0	8	21.25	0	1690.11	92609	Alabama DPS - Birmingham Post
21	Madison	Huntsville	I-565	14	24	9	0	9	17.78	0.01	1360.25	74534	Huntsville Police Department

Top 24 Mileposted Interstate Locations (5 miles in length)  
in Alabama with 8 or More Impaired Driving Related Crashes  
Resulting in Injury or Fatality





**Top 24 Mileposted Interstate Locations (5 miles in length) in Alabama  
with 8 or More Impaired Driving Related Crashes Resulting in Injury or Fatality**

**Regional Breakdown**

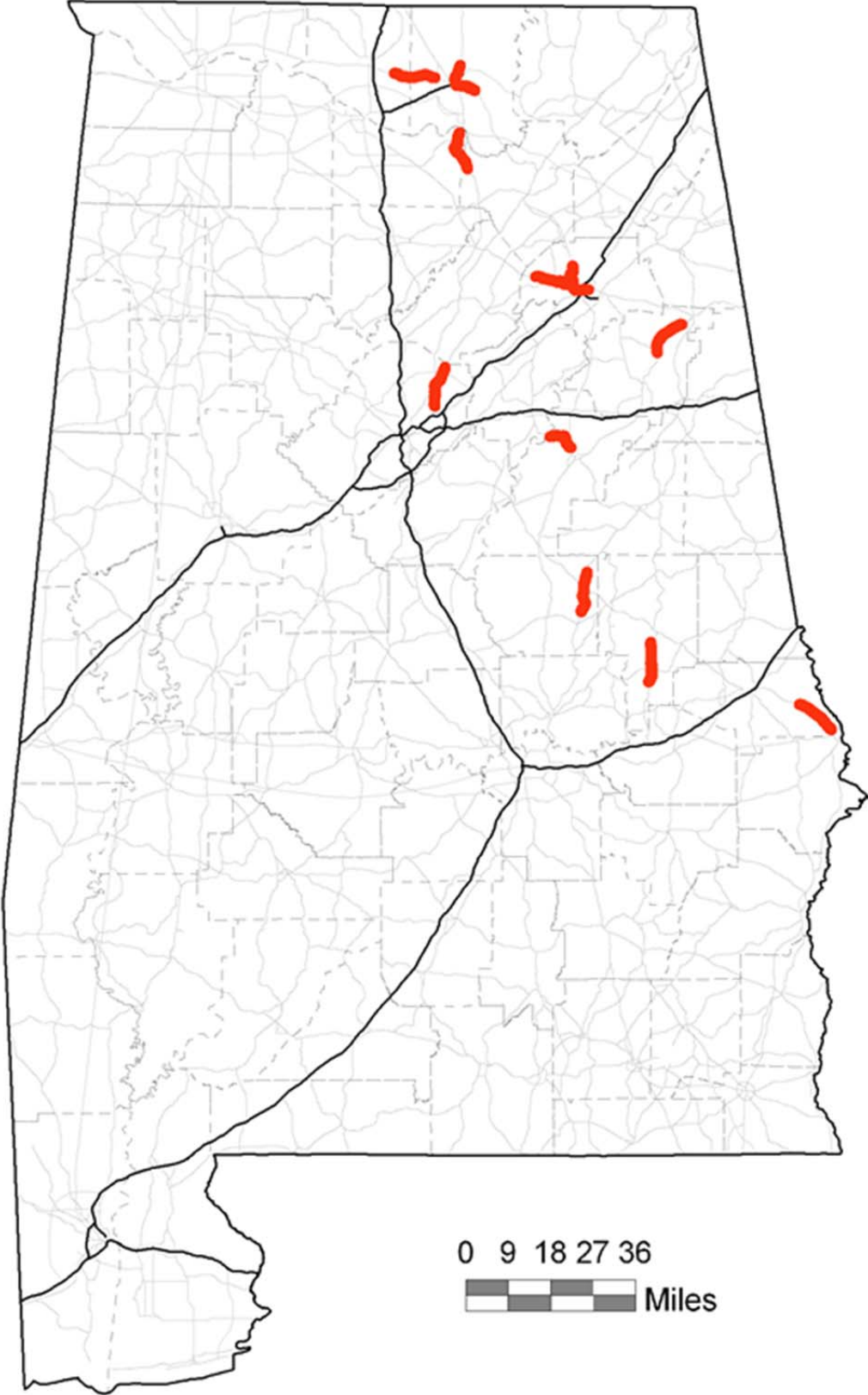
Birmingham Region	70.83%
Mobile Region	12.50%
North East Region	8.33%
Central Region	4.17%
West Region	4.17%
East Region	0.00%
North Region	0.00%
South East Region	0.00%
South West Region	0.00%

## Top 24 Mileposted Interstate Locations (5 Miles in Length) in Alabama with 8 or More Impaired Driving Related Crashes Resulting in Injury or Fatality

The map that corresponds to this data and marks these Hotspots is titled "Top 24 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	Injury	S/CRS	C/MVM	MVM	ADT	Agency ORI
1	Jefferson	Birmingham	I-59	131	136	9	2	7	30	0.02	461.14	50536	Birmingham Police Department
2	Jefferson	Hoover	I-459	5.8	10.8	9	3	6	30	0.02	504.17	55252	Hoover Police Department
3	Jefferson	Rural Jefferson	I-20	133.8	138.8	8	1	7	30	0.01	539.06	59075	Alabama DPS - Birmingham Post
4	Jefferson	Birmingham	I-59	123.9	128.9	19	4	15	29.47	0.01	1392.33	152584	Birmingham Police Department
5	Jefferson	Birmingham	I-59	118.5	123.5	14	3	11	27.14	0.01	939.61	102971	Birmingham Police Department
6	Jefferson	Rural Jefferson	I-459	19.5	24.5	10	0	10	27	0.01	722.72	79202	Alabama DPS - Birmingham Post
7	Jefferson	Birmingham	I-65	255.5	260.5	12	0	12	25.83	0.01	1180.71	129393	Birmingham Police Department
8	Etowah	Rural Etowah	I-59	176.2	181.2	12	0	12	25.83	0.06	193.61	21218	Alabama DPS - Gadsden Post
9	Jefferson	Birmingham	I-65	261	266	8	1	7	25	0.01	717.45	78625	Birmingham Police Department
10	Jefferson	Rural Jefferson	I-65	266	271	12	0	12	25	0.02	559.75	61342	Alabama DPS - Birmingham Post
11	Madison	Huntsville	I-565	16	21	10	0	10	25	0.02	616.07	67515	Huntsville Police Department
12	Jefferson	Rural Jefferson	I-59	113.5	118.5	13	1	12	24.62	0.02	526.77	57728	Alabama DPS - Birmingham Post
13	Saint Clair	Rural St. Clair	I-20	151.5	156.5	9	1	8	24.44	0.02	461.08	50529	Alabama DPS - Birmingham Post
14	Shelby	Hoover	I-65	245	250	9	0	9	23.33	0.01	924.14	101276	Hoover Police Department
15	Jefferson	Rural Jefferson	I-65	275.8	280.8	9	0	9	23.33	0.02	456.84	50065	Alabama DPS - Birmingham Post
16	Jefferson	Hoover	I-459	12	17	10	0	10	23	0.01	889.06	97431	Hoover Police Department
17	Jefferson	Bessemer	I-59	107	112	11	0	11	22.73	0.03	411.33	45077	Bessemer Police Department
18	Mobile	Mobile	I-65	0	5	16	1	15	21.88	0.02	801.18	87800	Mobile Police Department
19	Jefferson	Hoover	I-65	250	255	11	0	11	21.82	0.01	1092.54	119730	Hoover Police Department
20	Tuscaloosa	Rural Tuscaloosa	I-59	72.9	77.9	8	0	8	21.25	0.02	445.32	48802	Alabama DPS - Tuscaloosa Post
21	Shelby	Alabaster	I-65	237.7	242.7	8	0	8	20	0.01	665.85	72970	Alabaster Police Department
22	Mobile	Rural Mobile	I-10	12	17	8	0	8	20	0.01	563.78	61784	Alabama DPS - Mobile Post
23	Baldwin	Rural Baldwin	I-10	30.9	35.9	11	0	11	20	0.02	534.43	58568	Alabama DPS - Mobile Post
24	Montgomery	Rural Montgomery	I-65	171.5	176.5	8	0	8	16.25	0.01	587.87	64424	Alabama DPS - Montgomery Post

# Top 11 Mileposted Federal and State Route Locations (10 miles in length) in Alabama with 8 or More Speeding Related Crashes Resulting in Injury or Fatality



## **Top 11 Mileposted Federal and State Route Locations (10 miles in length) in Alabama with 8 or More Speeding Related Crashes Resulting in Injury or Fatality**

### **Regional Breakdown**

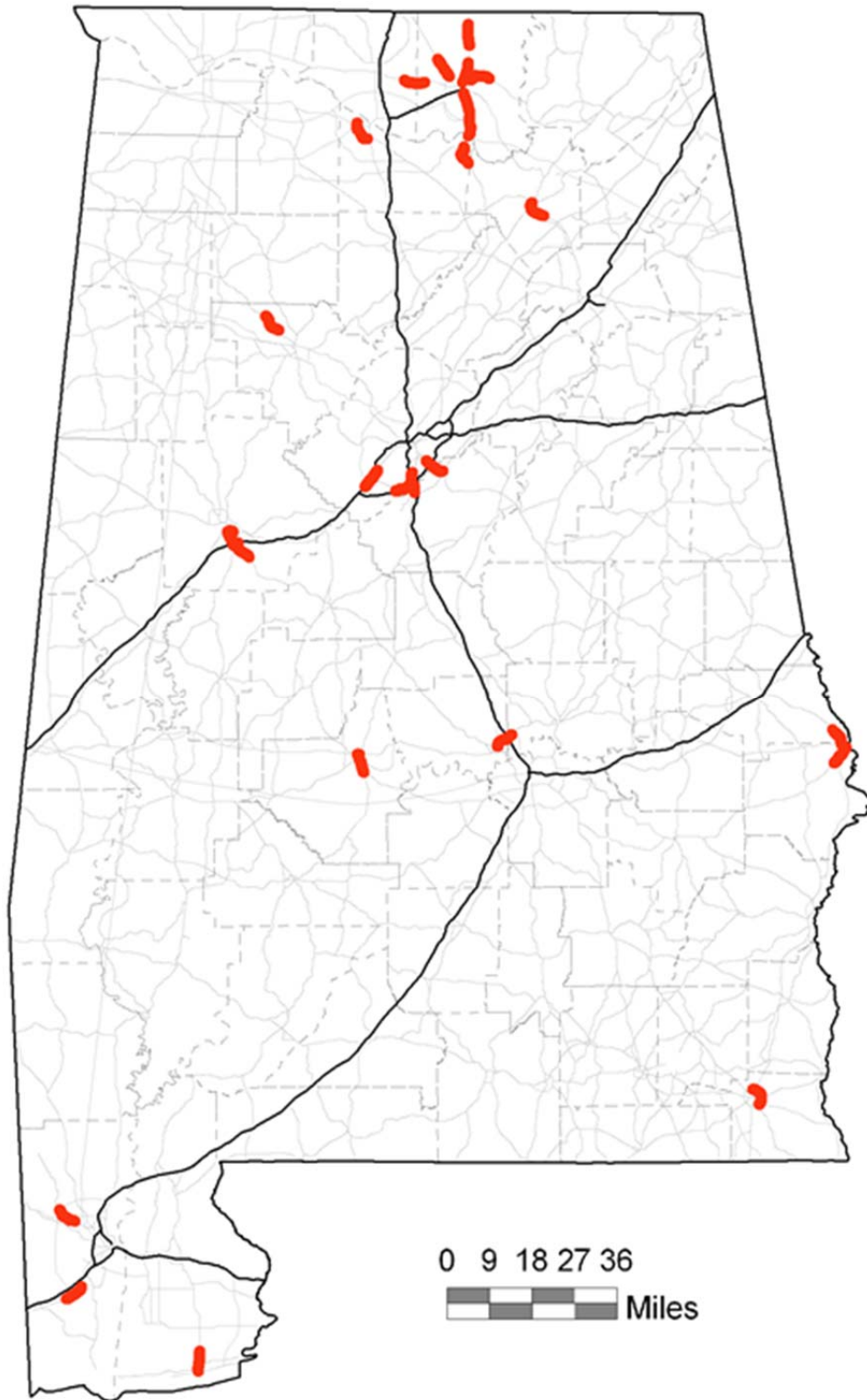
North Region	18.18%
East Region	36.36%
North East Region	27.27%
Birmingham Region	9.09%
Central Region	9.09%
Mobile Region	0.00%
South East Region	0.00%
West Region	0.00%
South West Region	0.00%

## Top 11 Mileposted State and Federal Route Locations (10 Miles in Length) in Alabama with 8 or More Speeding Related Crashes Resulting in Injury or Fatality

The map that corresponds to this data and marks these Hotspots is titled "Top 11 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	Injury	S/CRS	C/MVM	MVM	ADT	Agency ORI
1	Etowah	Rural Etowah	S-1	263.6	273.6	11	1	10	30	0.04	312.6	17129	Alabama DPS - Gadsden Post
2	Limestone	Rural Limestone	S-2	82	92	10	3	7	30	0.02	526.09	28827	Alabama DPS - Decatur Post
3	Coosa	Rural Coosa	S-9	150.8	160.8	8	1	7	30	0.18	45.21	2477	Alabama DPS - Alexander City Post
4	Etowah	Rural Etowah	S-74	115.2	125.2	9	1	8	30	0.08	115.43	6325	Alabama DPS - Gadsden Post
5	Lee	Phenix City	S-1	115.5	125.5	8	2	6	27.5	0.02	374.71	20532	Alabama DPS - Opelika Post
6	Jefferson	Rural Jefferson	S-75	2.6	12.6	9	1	8	26.67	0.03	318.21	17436	Jefferson County Sheriff's Office
7	Calhoun	Jacksonville	S-21	266.2	276.2	8	1	7	26.25	0.05	146.88	8048	Alabama DPS - Jacksonville Post
8	Talladega	Rural Talladega	S-34	6	16	8	0	8	26.25	0.15	54.49	2986	Alabama DPS - Jacksonville Post
9	Tallapoosa	Rural Tallapoosa	S-49	16.9	26.9	8	1	7	25	0.14	55.85	3060	Alabama DPS - Alexander City Post
10	Morgan	Rural Morgan	S-53	295.3	305.3	11	1	10	23.64	0.04	286.84	15717	Alabama DPS - Decatur Post
11	Madison	Huntsville	S-1	328.9	338.9	8	0	8	22.5	0.01	903.61	49513	Huntsville Police Department

Top 25 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



**Top 25 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**

**Regional Breakdown**

North East Region	28.00%
Birmingham Region	20.00%
North Region	12.00%
Central Region	12.00%
Mobile Region	12.00%
West Region	8.00%
South East Region	4.00%
South West Region	4.00%
East Region	0.00%

## Top 25 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

The map that corresponds to this data and marks these Hotspots is titled "Top 25 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	Injury	S/CRS	C/MVM	MVM	ADT	Agency ORI
1	Morgan	Decatur	S-67	40	45	9	2	7	31.11	0.04	238.43	26129	Decatur Police Department
2	Mobile	Rural Mobile	S-217	5	10	14	2	12	28.57	0.16	90.26	9892	Alabama DPS - Mobile Post
3	Marshall	Guntersville	S-1	290.3	295.3	14	2	12	27.86	0.05	270.24	29615	Guntersville Police Department
4	Madison	Huntsville	S-53	322.8	327.8	10	2	8	27	0.06	158.41	17360	Huntsville Police Department
5	Russell	Phenix City	S-1	107.5	112.5	9	0	9	26.67	0.04	209.46	22955	Phenix City Police Department
6	Jefferson	Bessemer	S-5	120	125	11	0	11	26.36	0.06	186.09	20393	Bessemer Police Department
7	Morgan	Rural Morgan	S-53	298.2	303.2	9	1	8	25.56	0.06	140.82	15432	Alabama DPS - Decatur Post
8	Walker	Rural Walker	S-5	178	183	9	1	8	25.56	0.26	34.38	3768	Alabama DPS - Birmingham Post
9	Russell	Phenix City	S-1	112.6	117.6	12	0	12	25	0.04	274.74	30108	Phenix City Police Department
10	Mobile	Rural Mobile	S-16	10.4	15.4	10	0	10	25	0.07	144.17	15799	Alabama DPS - Mobile Post
11	Jefferson	Hoover	S-150	7	12	9	1	8	24.44	0.03	283.51	31070	Hoover Police Department
12	Tuscaloosa	Tuscaloosa	S-215	1.5	6.5	17	1	16	24.12	0.13	134.09	14695	Tuscaloosa Police Department
13	Limestone	Rural Limestone	S-2	83	88	15	1	14	24	0.08	189.8	20800	Alabama DPS - Decatur Post
14	Tuscaloosa	Rural Tuscaloosa	S-6	53.1	58.1	9	0	9	22.22	0.08	112.47	12325	Alabama DPS - Tuscaloosa Post
15	Autauga	Prattville	S-14	153.7	158.7	9	1	8	22.22	0.05	186.22	20408	Prattville Police Department
16	Madison	Huntsville	S-2	100.1	105.1	12	1	11	20.83	0.04	298.69	32733	Huntsville Police Department
17	Shelby	Vestavia Hills	S-38	3.2	8.2	11	1	10	20	0.02	656.7	71967	Vestavia Hills Police Department
18	Madison	Rural Madison	S-1	345	350	14	0	14	19.29	0.07	201.11	22039	Alabama DPS - Huntsville Post
19	Baldwin	Gulf Shores	S-59	0.1	5.1	12	0	12	19.17	0.04	321.18	35198	Gulf Shores Police Department
20	Dallas	Rural Dallas	S-8	82.9	87.9	10	1	9	19	0.08	132.58	14529	Alabama DPS - Selma Post
21	Madison	Huntsville	S-53	311.5	316.5	12	0	12	18.33	0.02	650.32	71268	Huntsville Police Department
22	Madison	Huntsville	S-1	336	341	13	0	13	17.69	0.05	279.87	30671	Huntsville Police Department
23	Jefferson	Hoover	S-3	261.4	266.4	10	0	10	17	0.03	359.94	39445	Hoover Police Department
24	Madison	Huntsville	S-53	306	311	9	0	9	15.56	0.03	288.79	31648	Huntsville Police Department
25	Houston	Dothan	S-210	6.6	11.6	10	0	10	15	0.04	223.61	24505	Dothan Police Department



## Top 72 Intersection Locations Statewide with 3 or More Total Impaired Driving Related Crashes

### Regional Breakdown

North East Region	36.12%
Mobile Region	27.78%
Central Region	13.89%
Birmingham Region	8.33%
West Region	6.94%
North Region	6.94%
South East Region	0%
East Region	0%
South West Region	0%

## Top 72 Intersection Locations Statewide with 3 or More Total Impaired Driving Related Crashes

These crashes are those that happened off the state systems and are therefore not mappable at this time.

Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity	People Killed	People Injured	County	City	Link	Node 1	Node 2	Location	Agency ORI
3	0	3	0	23.33	0	3	Madison	Huntsville	2455	8121	0	DECATUR HWY SR-20 at GREENBRIER RD	Huntsville Police Department
3	0	3	0	23.33	0	5	Mobile	Rural Mobile	1373	8396	0	MCFARLAND RD CO 354 at THREE NOTCH KRONER RD	Alabama DPS - Mobile Post
3	0	2	1	20	0	7	Mobile	Mobile	8803	6200	0	NO DESCRIPTION AVAILABLE	Mobile Police Department
9	1	5	3	16.67	1	7	Lawrence	Rural Lawrence	1087	8840	8842	NO DESCRIPTION AVAILABLE	Alabama DPS - Decatur Post
3	0	2	1	16.67	0	4	Madison	Huntsville	6017	2313	0	HOLMES AVE at JORDAN AVE ALA 53	Huntsville Police Department
3	1	0	2	16.67	1	0	Madison	Huntsville		3184	3183	12TH ST at GOVERNORS DR	Huntsville Police Department
3	0	2	1	16.67	0	2	Madison	Huntsville	1018	8076	0	NO DESCRIPTION AVAILABLE	Huntsville Police Department
3	0	2	1	16.67	0	3	Mobile	Mobile	8860	9874	9831	PLEASANT AVE at ALA 17 & ST STEPHENS RD	Mobile Police Department
3	1	0	2	16.67	1	2	Lee	Auburn	6078	834	0	SR 147 COLLEGE ST at SR 267 SHUG JORDAN PKWY	Auburn Police Department
5	0	4	1	14	0	5	Madison	Huntsville	7228	2566	0	JORDAN LN (PATTON RD at BOB WALLACE AVE	Huntsville Police Department
3	0	2	1	13.33	0	2	Madison	Madison	8076	42	0	NO DESCRIPTION AVAILABLE	Madison Police Department
3	0	2	1	13.33	0	4	Mobile	Mobile	1346	12285	12283	NO DESCRIPTION AVAILABLE	Mobile Police Department
3	0	2	1	10	0	2	Baldwin	Rural Baldwin	1890	14601	0	NO DESCRIPTION AVAILABLE	Alabama DPS - Mobile Post
3	0	2	1	10	0	6	Mobile	Mobile	6200	2519	2518	MCGREGOR AVE at OLD SHELL RD	Mobile Police Department
3	0	1	2	10	0	1	Elmore	Millbrook	1048	8199	609	NO DESCRIPTION AVAILABLE	Millbrook Police Department
4	0	1	3	7.5	0	1	Mobile	Mobile		1298	0	GOVERNMENT BLVD US HWY 90 at ACCESS RD	Mobile Police Department
3	0	1	2	6.67	0	2	Morgan	Decatur	5052	635	3096	AUSTINVILLE RD at CARRIDALE ST	Decatur Police Department
3	0	1	2	6.67	0	1	Morgan	Hartselle	1055	260	213	NO DESCRIPTION AVAILABLE	Hartselle Police Department
3	0	1	2	6.67	0	2	Madison	Huntsville	6298	2707	0	SPARKMAN DR at UNIVERSITY DR	Huntsville Police Department
3	0	1	2	6.67	0	2	Madison	Huntsville	5491	5019	5018	ANDREW JACKSON WAY at OAKWOOD AVE N E	Huntsville Police Department
3	0	1	2	6.67	0	1	Tuscaloosa	Tuscaloosa	5449	1043	1039	5TH AVE E 5736 at BRYANT DR E 5449	Tuscaloosa Police Department
3	0	1	2	6.67	0	1	Tuscaloosa	Tuscaloosa	6299	277	0	15TH ST 5168 at LAKE AVE	Tuscaloosa Police Department
3	0	1	2	6.67	0	1	Jefferson	Rural Jefferson	1229	7811	0	CHALKVILLE MTN RD-CO 10 at MARTIN RD	Jefferson County Sheriff's Office
3	0	1	2	6.67	0	1	Jefferson	Birmingham	3414	1107	0	BEACON PKWY W at VALLEY AVE	Birmingham Police Department
3	0	1	2	6.67	0	3	Escambia	Brewton	5034	5034	5053	NO DESCRIPTION AVAILABLE	Brewton Police Department
3	0	1	2	6.67	0	1	Mobile	Mobile	1842	1595	0	GRELOT RD at HILLCREST RD	Mobile Police Department
3	0	1	2	6.67	0	1	Mobile	Mobile	8860	9795	56742	SHORT at DAVIDSON	Mobile Police Department
3	0	1	2	6.67	0	0	Mobile	Mobile	6051	1196	0	COTTAGE HILL RD at UNIVERSITY BLVD	Mobile Police Department
3	0	1	2	6.67	0	1	Autauga	Prattville	1002	890	1514	MAIN ST E at MCQUEEN SMITH RD	Prattville Police Department
3	0	1	2	6.67	0	1	Montgomery	Rural Montgomery	2046	8074	0	WARES FERRY RD at PRIVATE RD	Alabama DPS - Montgomery Post
7	0	2	5	5.71	0	3	Madison	Huntsville	1028	1363	0	BLEVINS GAP RD at SEQUOYAH TRAIL	Huntsville Police Department
7	0	2	5	5.71	0	2	Lee	Auburn	5047	315	933	MAGNOLIA AVE at SR 147 COLLEGE ST	Auburn Police Department

# Top 72 Intersection Locations Statewide with 3 or More Total Impaired Driving Related Crashes

These crashes are those that happened off the state systems and are therefore not mappable at this time.

Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity	People Killed	People Injured	County	City	Link	Node 1	Node 2	Location	Agency ORI
4	0	1	3	5	0	1	Madison	Huntsville	7608	41240	0	NO DESCRIPTION AVAILABLE	Huntsville Police Department
6	0	2	4	5	0	4	Madison	Madison	1005	41	0	NO DESCRIPTION AVAILABLE	Madison Police Department
4	0	1	3	5	0	3	Baldwin	Rural Baldwin	1480	8009	8003	NO DESCRIPTION AVAILABLE	Alabama DPS - Mobile Post
7	0	1	6	4.29	0	1	Madison	Huntsville	7228	2004	0	DRAKE AVE at PATTON RD	Huntsville Police Department
3	0	1	2	3.33	0	1	Madison	Huntsville	5626	3300	0	DRAKE AVE at IVY AVE	Huntsville Police Department
3	0	1	2	3.33	0	2	Madison	Huntsville	6298	958	0	BIDEFORD DR at LEICESTER DR	Huntsville Police Department
3	0	1	2	3.33	0	1	Madison	Huntsville	6667	2523	2527	UNIVERSITY DR SR-2 at WYNN DR	Huntsville Police Department
3	0	1	2	3.33	0	2	Madison	Huntsville		1399	4769	MEMORIAL PKWY N SR-1 at UNIVERSITY DR	Huntsville Police Department
3	0	1	2	3.33	0	1	Madison	Madison	1005	200	199	NO DESCRIPTION AVAILABLE	Madison Police Department
3	0	1	2	3.33	0	1	Madison	Huntsville	5334	4129	456	MEMORIAL PKWY S SR-53 at WEATHERLY RD	Huntsville Police Department
3	0	1	2	3.33	0	1	Tuscaloosa	Tuscaloosa	5970	34	0	37TH ST 5970 at HIGHLAND OAKS DR	Tuscaloosa Police Department
3	0	1	2	3.33	0	1	Tuscaloosa	Tuscaloosa	5704	323	0	12TH ST 5699 at 10TH AVE	Tuscaloosa Police Department
3	0	1	2	3.33	0	1	Shelby	Hoover	1250	8230	0	INTERSTATE 65 at VALLEYDALE RD	Hoover Police Department
3	0	1	2	3.33	0	2	Shelby	Hoover	1250	93	0	RIVERCHASE PKWY E at VALLEYDALE RD	Hoover Police Department
3	0	1	2	3.33	0	1	Mobile	Rural Mobile	8860	10129	0	MOFFAT RD US HWY 98 at SCHILLINGER RD	Alabama DPS - Mobile Post
3	0	1	2	3.33	0	1	Mobile	Rural Mobile	1145	7922	0	MARCH RD CO 295 at OLD PASCAGOULA RD	Alabama DPS - Mobile Post
3	0	1	2	3.33	0	4	Mobile	Mobile		7593	0	MOFFAT RD US HWY 98 at WOLF RIDGE RD E JCT	Mobile Police Department
3	0	1	2	3.33	0	1	Montgomery	Montgomery	1171	4481	0	NARROW LANE RD at SOUTH BLVD SR-6 US-82	Montgomery Police Department
4	0	1	3	2.5	0	1	Limestone	Rural Limestone	1350	7756	0	NO DESCRIPTION AVAILABLE	Alabama DPS - Decatur Post
4	0	1	3	2.5	0	1	Mobile	Mobile	1346	2005	40756	AIRPORT BLVD at MCGREGOR AVE AT AZALEA RD	Mobile Police Department
6	0	1	5	1.67	0	1	Madison	Huntsville	7219	2065	0	DRAKE AVE at TRIANA BLVD	Huntsville Police Department
7	0	1	6	1.43	0	1	Madison	Huntsville		2356	0	JORDAN LN SR-53 at UNIVERSITY DR	Huntsville Police Department
3	0	0	3	0	0	0	Morgan	Decatur	5193	1404	0	14TH AVE SW at 2ND ST SW	Decatur Police Department
4	0	0	4	0	0	0	Madison	Huntsville	6027	4758	0	MONROE ST at WASHINGTON ST	Huntsville Police Department
3	0	0	3	0	0	0	Madison	Huntsville	1305	209	0	MAIN DR N.E at CAMPUS RD	Huntsville Police Department
3	0	0	3	0	0	0	Madison	Huntsville	5932	5701	0	MEMORIAL PKWY N SR-1 at OAKWOOD AVE	Huntsville Police Department
3	0	0	3	0	0	0	Madison	Huntsville	1016	62485	8826	NO DESCRIPTION AVAILABLE	Huntsville Police Department
4	0	0	4	0	0	0	Madison	Madison	8076	48	449	NO DESCRIPTION AVAILABLE	Madison Police Department
3	0	0	3	0	0	0	Madison	Huntsville	6298	897	0	MEMORIAL PKWY N SR-1 at SPARKMAN DR AT US 72 E	Huntsville Police Department
3	0	0	3	0	0	0	Tuscaloosa	Tuscaloosa	5168	269	271	15TH ST 5168 at ALA 6 MCFARLAND & 15 ST E	Tuscaloosa Police Department
3	0	0	3	0	0	0	Jefferson	Homewood	5033	185	0	NO DESCRIPTION AVAILABLE	Homewood Police Department
3	0	0	3	0	0	0	Jefferson	Homewood	2714	35025	0	NO DESCRIPTION AVAILABLE	Homewood Police Department
4	0	0	4	0	0	0	Mobile	Mobile	5568	667	0	COTTAGE HILL RD at HILLCREST RD	Mobile Police Department
4	0	0	4	0	0	0	Mobile	Mobile	5764	1359	0	SALLIE CT at WESLEY LN E	Mobile Police Department
3	0	0	3	0	0	0	Mobile	Mobile	1359	1185	1186	COTTAGE HILL RD at DEMETROPOLIS RD	Mobile Police Department
3	0	0	3	0	0	0	Mobile	Mobile	1346	2139	0	AIRPORT BLVD at UNIVERSITY BLVD	Mobile Police Department
3	0	0	3	0	0	0	Lee	Auburn	5136	316	590	GAY ST S at MAGNOLIA AVE E	Auburn Police Department
3	0	0	3	0	0	0	Lee	Auburn	6078	704	0	DONAHUE DR at SR 147 COLLEGE ST	Auburn Police Department
3	0	0	3	0	0	0	Montgomery	Montgomery		999	0	DECATUR ST N at GRAVES ST	Montgomery Police Department
3	0	0	3	0	0	0	Montgomery	Montgomery	5844	8058	6948	NO DESCRIPTION AVAILABLE	Montgomery Police Department

# Top 15 Segment Locations Statewide with 3 or More Speeding Related Crashes Resulting in Injury or Fatality

## Regional Breakdown

North East Region	33.33%
East Region	26.66%
Central Region	13.33%
South East Region	6.67%
North Region	6.67%
West Region	6.67%
Mobile Region	6.67%
South West Region	0%
Birmingham Region	0%

## Top 15 Segment Locations Statewide with 3 or More Speeding Related Crashes Resulting in Injury or Fatality

These crashes are those that happened off the state systems and are therefore not mappable at this time.

Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity	People Killed	People Injured	County	City	Link	Node 1	Node 2	Location	Agency ORI
3	2	1	0	40	3	2	Talladega	Rural Talladega	1047	7824	8278	NO DESCRIPTION AVAILABLE	Alabama DPS - Jacksonville Post
3	1	2	0	36.67	1	6	Etowah	Rural Etowah	1313	8015	8689	NO DESCRIPTION AVAILABLE	Alabama DPS - Gadsden Post
3	0	3	0	30	0	3	Etowah	Rural Etowah	1306	8068	8065	NO DESCRIPTION AVAILABLE	Alabama DPS - Gadsden Post
3	0	3	0	30	0	3	Etowah	Rural Etowah	1269	7821	7824	NO DESCRIPTION AVAILABLE	Alabama DPS - Gadsden Post
3	0	3	0	30	0	5	Clay	Rural Clay	1283	7617	1	NO DESCRIPTION AVAILABLE	Alabama DPS - Jacksonville Post
3	0	3	0	30	0	3	Henry	Rural Henry	1169	184	7362	NO DESCRIPTION AVAILABLE	Alabama DPS - Dothan Post
4	0	4	0	27.5	0	5	Talladega	Rural Talladega	1045	8040	7191	NO DESCRIPTION AVAILABLE	Alabama DPS - Jacksonville Post
4	1	3	0	25	1	3	Autauga	Rural Autauga	1069	7238	7353	NO DESCRIPTION AVAILABLE	Alabama DPS - Montgomery Post
3	0	3	0	23.33	0	3	Tuscaloosa	Rural Tuscaloosa	1405	7979	7980	NO DESCRIPTION AVAILABLE	Alabama DPS - Tuscaloosa Post
3	0	3	0	23.33	0	3	Tallapoosa	Rural Tallapoosa	1196	8137	8142	NO DESCRIPTION AVAILABLE	Alabama DPS - Alexander City Post
3	0	3	0	20	0	5	Madison	Rural Madison	1324	7696	7697	DARWIN RD at MOORES MILL RD and EAKIN RD	Alabama DPS - Huntsville Post
3	0	3	0	20	0	3	Marshall	Rural Marshall	1176	7349	8591	NO DESCRIPTION AVAILABLE	Alabama DPS - Huntsville Post
3	0	3	0	20	0	4	Mobile	Rural Mobile	1275	7318	7537	BELLINGRATH RD CO 59 at DELCHAMPS RD and DEAKLE RD	Alabama DPS - Mobile Post
3	0	3	0	16.67	0	4	Cullman	Rural Cullman	1013	8556	8555	NO DESCRIPTION AVAILABLE	Alabama DPS - Decatur Post
3	0	3	0	16.67	0	4	Lee	Rural Lee	1151	7420	7423	NO DESCRIPTION AVAILABLE	Alabama DPS - Opelika Post

## Top 58 Segment Locations Statewide with 3 or More Total Impaired Driving Related Crashes

### Regional Breakdown

North Region	12.07%
North East Region	20.69%
Mobile Region	15.52%
Central Region	20.69%
Birmingham Region	12.07%
West Region	12.07%
South East Region	1.72%
East Region	3.45%
South West Region	1.72%

## Top 58 Segment Locations Statewide with 3 or More Total Impaired Driving Related Crashes

These crashes are those that happened off the state systems and are therefore not mappable at this time.

Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity	People Killed	People Injured	County	City	Link	Node 1	Node 2	Location	Agency ORI
3	0	3	0	26.67	0	5	Tuscaloosa	Tuscaloosa	1185	5203	5030	NO DESCRIPTION AVAILABLE	Tuscaloosa Police Department
3	0	3	0	26.67	0	4	Jefferson	Rural Jefferson	1231	17258	21102	HAMBY RD at MARSH MTN RD-CO 153	Alabama DPS - Birmingham Post
3	0	3	0	26.67	0	3	Escambia	Rural Escambia	1154	8021	7270	NO DESCRIPTION AVAILABLE	Alabama DPS - Evergreen Post
3	1	1	1	26.67	1	3	Montgomery	Rural Montgomery	1086	7431	7419	DORAL TRACE at SNOWDOUN CHAMBERS RD	Alabama DPS - Montgomery Post
4	0	4	0	25	0	6	Madison	Rural Madison	1154	7311	7313	LOVELESS RD at WEST LIMESTONE RD and BOBO RD	Alabama DPS - Huntsville Post
3	0	3	0	23.33	0	3	Morgan	Rural Morgan	1004	7775	7702	NO DESCRIPTION AVAILABLE	Alabama DPS - Decatur Post
3	0	3	0	23.33	0	5	Tuscaloosa	Tuscaloosa	5970	70	71	37TH ST 5970 at CITY ST 6010 and at HARGROVE RD	Tuscaloosa Police Department
3	0	3	0	23.33	0	4	Talladega	Talladega	1323	737	736	NO DESCRIPTION AVAILABLE	Talladega Police Department
3	0	2	1	20	0	2	Lauderdale	Rural Lauderdale	1032	7306	7304	NO DESCRIPTION AVAILABLE	Alabama DPS - Quad Cities Post
3	0	2	1	20	0	4	Tuscaloosa	Tuscaloosa	1185	846	336	24TH AVE 6138 at RIVER ROAD 1185 and 22ND AVE 5187	Tuscaloosa Police Department
3	0	2	1	20	0	3	Mobile	Rural Mobile	1620	8991	8910	MASON FERRY RD CO 769 at WILMER-GEORGETOWN RD	Alabama DPS - Mobile Post
3	0	2	1	20	0	4	Mobile	Rural Mobile	1524	8730	8906	CUSS FORK RD CO 762 at GLENWOOD RD/NATCHEZ TRACE	Alabama DPS - Mobile Post
3	0	2	1	16.67	0	3	Lauderdale	Rural Lauderdale	1211	7385	9426	NO DESCRIPTION AVAILABLE	Alabama DPS - Quad Cities Post
3	0	2	1	16.67	0	2	Morgan	Rural Morgan	1191	7845	7844	NO DESCRIPTION AVAILABLE	Alabama DPS - Decatur Post
3	0	2	1	16.67	0	3	Lauderdale	Rural Lauderdale	1002	7289	7224	NO DESCRIPTION AVAILABLE	Alabama DPS - Quad Cities Post
3	0	2	1	16.67	0	2	Madison	Madison	1010	520	911	NO DESCRIPTION AVAILABLE	Madison Police Department
3	0	2	1	16.67	0	4	Chilton	Rural Chilton	1061	7390	7391	NO DESCRIPTION AVAILABLE	Alabama DPS - Montgomery Post
3	1	0	2	16.67	1	0	Mobile	Rural Mobile	8860	10129	10138	US HWY 98 at SCHILLINGER RD and HIGHWOOD CIR S	Alabama DPS - Mobile Post
3	1	0	2	16.67	1	0	Mobile	Rural Mobile	1634	8731	9415	COLEMAN DAIRY RD at CUSS FORK RD and LEE ROY JORDAN SC	Alabama DPS - Mobile Post
3	0	2	1	16.67	0	2	Mobile	Rural Mobile	1346	8456	8449	AIRPORT BLVD CO 56 at NEWMAN RD and FERNLAND LN	Alabama DPS - Mobile Post
3	0	2	1	16.67	0	3	Lee	Rural Lee	1072	7230	7218	NO DESCRIPTION AVAILABLE	Alabama DPS - Opelika Post
3	0	2	1	13.33	0	4	Marshall	Rural Marshall	1466	9226	8332	NO DESCRIPTION AVAILABLE	Alabama DPS - Huntsville Post
3	0	2	1	13.33	0	2	Madison	Rural Madison	1263	40215	7394	READY SECTION RD at SHOSHONE TR and OLD RAILROAD	Alabama DPS - Huntsville Post
3	0	2	1	13.33	0	2	Madison	Rural Madison	2120	7327	7340	HENSHAW RD at DAWN DR and FRANK CHURCH RD	Alabama DPS - Huntsville Post
3	0	2	1	13.33	0	4	Madison	Rural Madison	1154	7311	7309	LOVELESS RD at WEST LIMESTONE RD and BANYON RD	Alabama DPS - Huntsville Post
3	0	2	1	13.33	0	4	Chilton	Rural Chilton	1393	8222	8223	NO DESCRIPTION AVAILABLE	Alabama DPS - Montgomery Post
3	0	2	1	13.33	0	3	Mobile	Rural Mobile	8860	9511	9489	LOTT RD at SCHILLINGER AT NEWBURN RD and RENEE RD	Alabama DPS - Mobile Post
3	0	2	1	13.33	0	6	Mobile	Rural Mobile	1275	7318	7537	BELLINGRATH RD CO 59 at DELCHAMPS RD and DEAKLE RD	Alabama DPS - Mobile Post
3	0	2	1	13.33	0	6	Lee	Rural Lee	1379	7602	7553	NO DESCRIPTION AVAILABLE	Alabama DPS - Opelika Post
4	0	2	2	10	0	2	Lauderdale	Rural Lauderdale	1436	7975	7987	NO DESCRIPTION AVAILABLE	Alabama DPS - Quad Cities Post
3	0	1	2	10	0	1	Madison	Rural Madison	1184	7263	7262	MOORES MILL RD at STEGER RD and MCCOLLUM RD	Alabama DPS - Huntsville Post
3	0	1	2	10	0	2	Walker	Rural Walker	1018	7918	7917	NO DESCRIPTION AVAILABLE	Alabama DPS - Birmingham Post

## Top 58 Segment Locations Statewide with 3 or More Total Impaired Driving Related Crashes

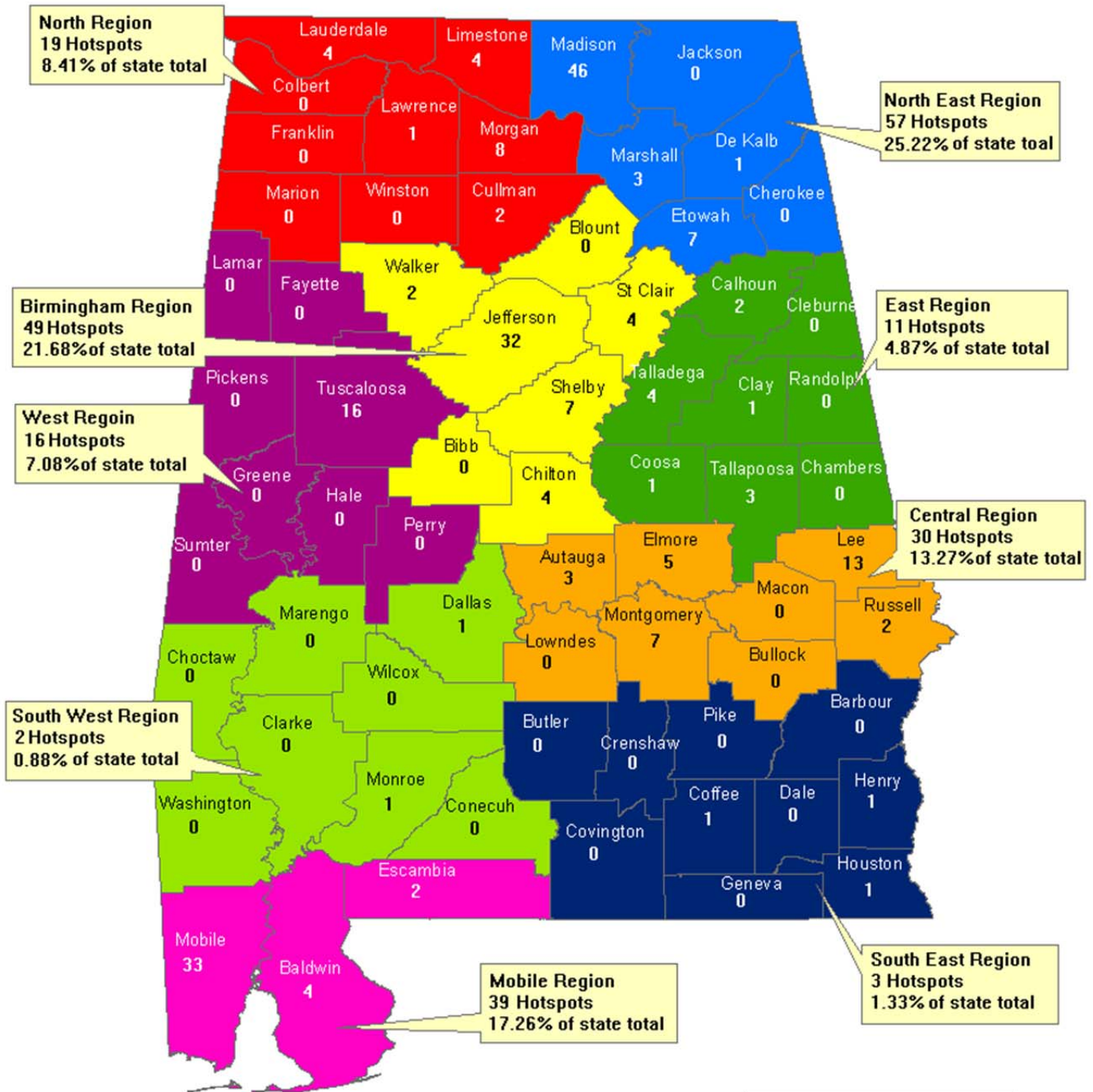
These crashes are those that happened off the state systems and are therefore not mappable at this time.

Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity	People Killed	People Injured	County	City	Link	Node 1	Node 2	Location	Agency ORI
3	0	1	2	10	0	2	Mobile	Rural Mobile	1215	12024	7758	ARGYLE RD CO 71 at BEVERLY RD and HALF MILE RD	Alabama DPS - Mobile Post
3	0	1	2	10	0	1	Lee	Auburn	1083	10	2442	DONAHUE DR at SR 267 COLLEGE ST W	Auburn Police Department
3	0	1	2	10	0	2	Elmore	Coosada	1033	226	189	NO DESCRIPTION AVAILABLE	Coosada Police Department
3	0	1	2	10	0	1	Coffee	Rural Coffee	1086	7303	7296	NO DESCRIPTION AVAILABLE	Alabama DPS - Dothan Post
3	0	1	2	6.67	0	1	Madison	Huntsville	1324	5344	5372	MOORES MILL RD at U. S. HWY 72 E and STANWOOD RD	Huntsville Police Department
3	0	1	2	6.67	0	2	Tuscaloosa	Rural Tuscaloosa	1012	7688	10522	NO DESCRIPTION AVAILABLE	Alabama DPS - Tuscaloosa Post
3	0	1	2	6.67	0	1	Chilton	Rural Chilton	1506	8100	8093	NO DESCRIPTION AVAILABLE	Alabama DPS - Montgomery Post
3	0	1	2	6.67	0	1	Monroe	Rural Monroe	1023	7164	7163	NO DESCRIPTION AVAILABLE	Alabama DPS - Evergreen Post
3	0	1	2	6.67	0	1	Elmore	Rural Elmore	2120	9571	7006	NO DESCRIPTION AVAILABLE	Alabama DPS - Montgomery Post
3	0	1	2	6.67	0	1	Lee	Opelika	5553	1582	1476	NO DESCRIPTION AVAILABLE	Opelika Police Department
3	0	1	2	3.33	0	2	Madison	Rural Madison	1018	8046	8045	BISHOP RD at OLD MONROVIA RD at CAPSHAW RD	Alabama DPS - Huntsville Post
3	0	1	2	3.33	0	1	Madison	Madison	5163	140	1524	NO DESCRIPTION AVAILABLE	Madison Police Department
3	0	1	2	3.33	0	1	Madison	Madison	1005	199	200	NO DESCRIPTION AVAILABLE	Madison Police Department
3	0	1	2	3.33	0	1	Tuscaloosa	Rural Tuscaloosa	1224	7197	7196	NO DESCRIPTION AVAILABLE	Alabama DPS - Tuscaloosa Post
4	0	1	3	2.5	0	1	Tuscaloosa	Northport	5299	1317	1318	CITY ST 5299 at CITY ST 5300	Northport Police Department
3	0	0	3	0	0	0	Limestone	Rural Limestone	1423	7304	7302	NO DESCRIPTION AVAILABLE	Alabama DPS - Decatur Post
3	0	0	3	0	0	0	Dekalb	Rural Dekalb	1173	7884	7888	NO DESCRIPTION AVAILABLE	Alabama DPS - Gadsden Post
3	0	0	3	0	0	0	Tuscaloosa	Northport	5299	1319	1321	CITY ST 5299 at CITY ST 5299 END CIR and CITY ST 5301	Northport Police Department
3	0	0	3	0	0	0	Saint Clair	Moody	1016	84	7860	NO DESCRIPTION AVAILABLE	Moody Police Department
4	0	0	4	0	0	0	Jefferson	Birmingham	4238	311	312	2ND AVE N at 9TH ST N SR4-7 US7-11 and 8TH ST N	Birmingham Police Department
3	0	0	3	0	0	0	Tallapoosa	Rural Tallapoosa	1348	8296	8293	NO DESCRIPTION AVAILABLE	Alabama DPS - Alexander City Post
4	0	0	4	0	0	0	Elmore	Rural Elmore	1269	7976	7977	NO DESCRIPTION AVAILABLE	Alabama DPS - Montgomery Post
3	0	0	3	0	0	0	Lee	Rural Lee	1240	7671	7672	NO DESCRIPTION AVAILABLE	Alabama DPS - Opelika Post
3	0	0	3	0	0	0	Lee	Rural Lee	1010	2387	7336	NO DESCRIPTION AVAILABLE	Alabama DPS - Opelika Post
3	0	0	3	0	0	1	Lee	Auburn	5569	1464	2074	NO DESCRIPTION AVAILABLE	Auburn Police Department
4	0	0	4	0	0	0	Montgomery	Montgomery		999	999	DECATUR ST N at GRAVES ST	Montgomery Police Department



# Hotspot Totals for Alabama

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



Statewide Total Hotspots = 226

**Hotspot Listings:**  
 County Name  
 Total Number of Hotspots

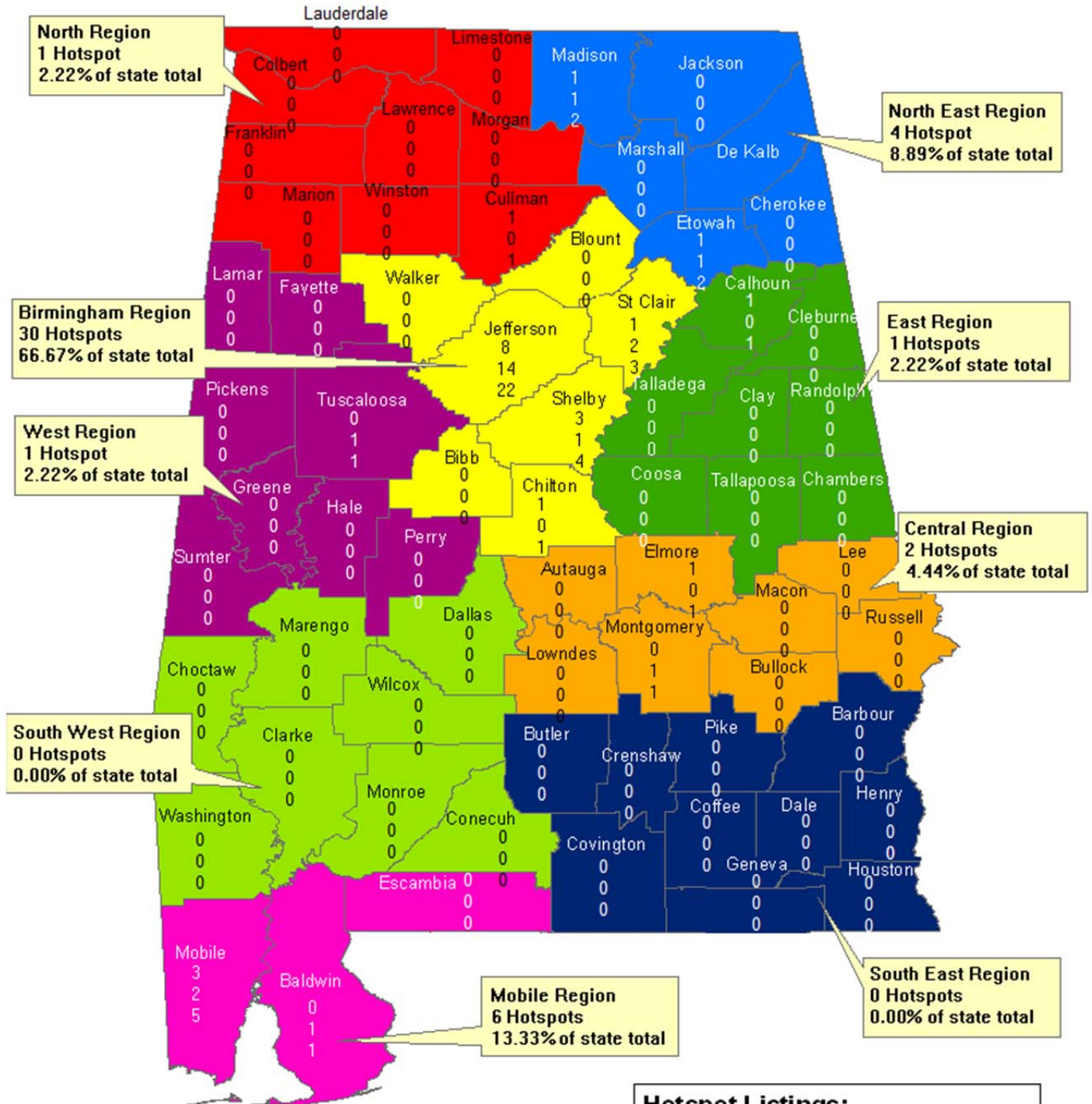
## Total Hotspots for Alabama (226 Total Hotspots)

### Regional Breakdown

North East Region	25.22%
Birmingham Region	21.68%
Mobile Region	17.26%
Central Region	13.27%
North Region	11.11%
West Region	8.41%
East Region	4.87%
South East Region	1.33%
South West Region	0.88%

# Interstate Hotspot Totals for Alabama

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



Statewide Total Hotspots = 45

### Hotspot Listings:

County Name  
 Speed Hotspots on Interstates  
 Impaired Driving Hotspots on Interstates  
 Total Number of Hotspots on Interstates

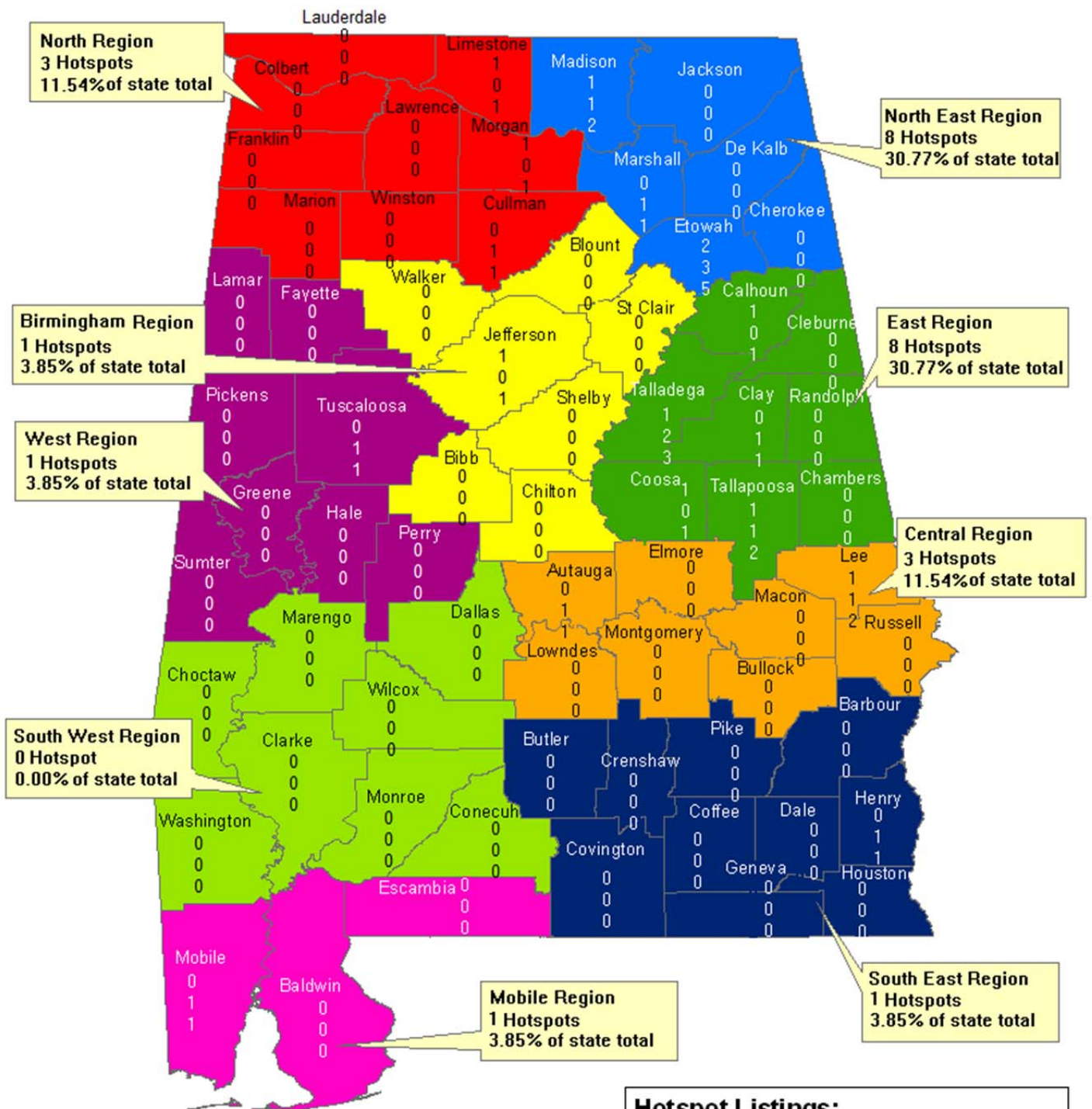
## Interstate Hotspots for Alabama (45 Total Hotspots)

### Regional Breakdown

Birmingham Region	66.67%
Mobile Region	13.33%
North Region	8.89%
North East Region	8.89%
Central Region	4.44%
West Region	2.22%
East Region	2.22%
South East Region	0.00%
South West Region	0.00%

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

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



## Speeding Related Hotspots for State/Federal and Non-Mileposted Roads (26 Total Hotspots)

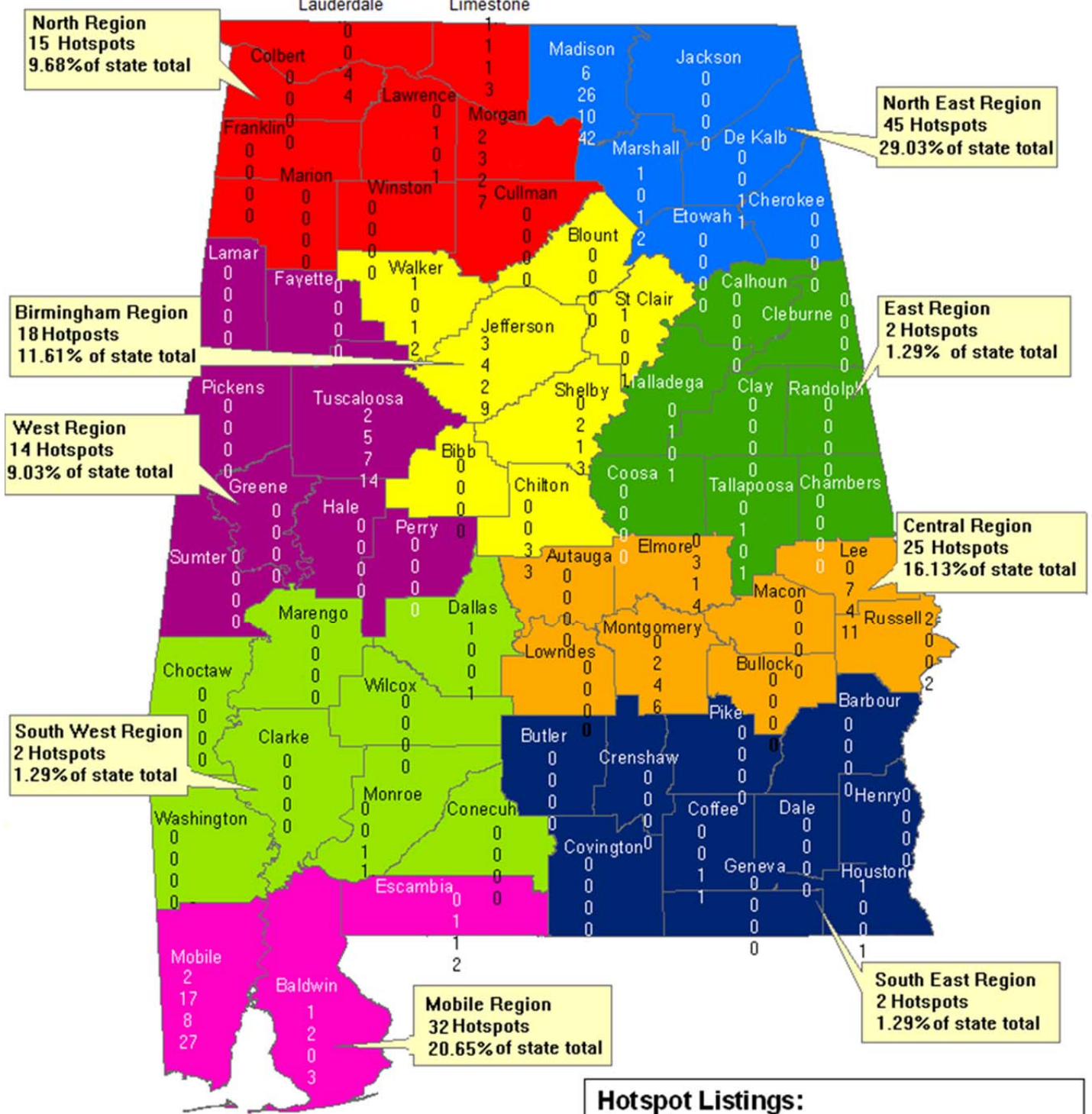
### Regional Breakdown

North East Region	30.77%
East Region	30.77%
North Region	11.54%
Central Region	11.54%
West Region	3.85%
Birmingham Region	3.85%
Mobile Region	3.85%
South East Region	3.85%
South West Region	0.00%

+

# 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)



Statewide Total Hotspots = 155

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

**Regional Breakdown**

Mobile Region	20.65%
Central Region	16.13%
Birmingham Region	11.61%
North East Region	9.68%
North Region	9.68%
West Region	9.03%
South East Region	1.29%
East Region	1.29%
South West Region	1.29%



## PLANNED ACTIVITIES

In previous portions of the HSP, several strategies for the coming year were laid out. Each of these strategies dealt with the operation of AOHS and the focus on the hotspot crashes that have been identified in this HSP. In this section of the HSP, these strategies will be grouped according to their funding source. Each strategy will be briefly discussed and the rationale for these projects from *NHTSA Countermeasures that Work* will be noted. The amount of money allotted to each strategy during the coming year will be given.

### 402 Planned Activities:

#### Planning and Administration:

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 Manager who will spend approximately 50% of his time on highway traffic safety related issues. Personnel in the indirect cost category include the LETS Division Chief/GR at 20% of his time, the LETS Accounting Manager at 20% of his time and two (2) Accounting Staff Members at 30% of their time devoted to highway traffic safety. All P & A costs will be split 50% Federal and 50% State.

**Indirect Cost:** Per a Negotiated Indirect Cost Rate Agreement dated October 26, 2012 with the U.S. Department of Labor, the ADECA LETS Division has been approved to use a Provisional Indirect Cost Rate of 4.3% for the period of 10/1/2012 through 9/30/2013 on grants and contracts with the Federal Government. In accordance with the agreement, ADECA must submit a proposal to establish a final rate within six months after the end of the fiscal year. Any and all adjustments will be made in accordance with the terms stated in the Negotiated Indirect Cost Rate Agreement. As such, the Provisional Indirect Cost Rate of 4.3% will most likely change for future periods. The ADECA LETS Division will use the Negotiated Indirect Cost Rates determined to be in effect at that time for future periods.

Planning and administration are not covered by *NHTSA Countermeasures that Work*.

**Total FY 2014 Allotment = \$175,000.00 (Funding Source – Section 402 PA)**  
**State Match = \$175,000.00**

#### Support Community Traffic Safety Program (CTSP)/Law Enforcement Liaison (LEL) projects:

In addition to the efforts of the state office in Montgomery, there are nine 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 nine regions, a CTSP/LEL office is located in each region. Each of these regions is responsible for the problem areas within their region and will supply reports and information back to the central office regarding the efforts taking place within their region.

The major focus of the CTSP/LEL efforts is involved with assuring the effective execution of very focused 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.

**Total FY 2014 Allotment = \$1,478,732.83 (Funding Source – Section 402 CP)**

**“Click It or Ticket” campaign (Paid Media):**

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 concluding on the Memorial Day Holiday. This has been a highly successful program in the past several years. Alabama will continue to lend its full support to the program in the coming year.

The value of Click it or Ticket (CIOT) projects is well documented (see *NHTSA Countermeasures that Work* Page 2-4). High-visibility, short-duration belt law enforcement programs were demonstrated in individual communities in the late 1980s. North Carolina’s CIOT program took this model statewide beginning in 1993 and raised the use rate above 80%. The CIOT model expanded nationwide in 2003 and belt use increased nationwide in almost all states from 2000-2006, in part due to CIOT seatbelt enforcement programs. The national belt use rate reached 86% in 2012. Alabama is very enthusiastic about being a part of this national program.

**Total FY 2014 Allotment = \$200,000.00 (Funding Source – 402 PM)**

**Statewide “Click It or Ticket” campaign (High Visibility Enforcement):**

In addition to the paid media, we will have High Visibility Enforcement program for a three week period. The enforcement program will consist of members from the Municipal Law Enforcement Agencies, County Sheriffs and State Highway Patrol (Department of Public Safety).

The value of Click it or Ticket (CIOT) projects is well documented (see *NHTSA Countermeasures that Work* Page 2-4). High-visibility, short-duration belt law enforcement programs were demonstrated in individual communities in the late 1980s. North Carolina’s CIOT program took this model statewide beginning in 1993 and raised the use rate above 80%. The CIOT model expanded nationwide in 2003 and belt use increased nationwide in almost all states from 2000-2006, in part due to CIOT seatbelt enforcement programs. The national belt use rate reached 86% in 2012. Alabama is very enthusiastic about being a part of this national program.

**Total FY 2014 Allotment = \$200,000.00 (Funding Source – Section 402 PT)**

**Conduct Hotspot Special Traffic Enforcement Program (STEP) projects:**

There will be nine local 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 nine CTSP/LEL regions and the statewide STEP project will be conducted in conjunction with the Ala-

bama Department of Public Safety. 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 value of such integrated enforcement efforts is demonstrated by studied 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.

**Total FY 2014 Allotment = \$1,600,000.00 (Funding Source – Section 402 PT)**

### **Driver’s License Suspension Appeals (DLSA) Program:**

Plans are to fund the DLSA program through the Alabama Department of Public Safety. The goal of this program is to assure impaired driving case load is maintained at a manageable level.

According to *NHTSA Countermeasures that Work* (Page 1-12), many State Administrative License Revocation (ALT) 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 is it 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.

**Total FY 2014 Allotment = \$33,894.46 (Funding Source – Section 402 AL)**

### **405b Planned Activities:**

#### **Child Passenger Safety Training and Coordination**

We will have a state Child Passenger Safety coordinator. We will provide training for first time technicians, re-certification, and renewals for trained technicians. Fitting stations will be available to the public. The technicians will ensure the child passenger restraints are installed correctly.

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.

**Total FY 2014 Allotment = \$150,000.00 (Funding Source – Section 405b)**

#### **Statewide “Click It or Ticket” (Surveys, Analysis, Certification and Final Report):**

The Center for Advanced Public Safety (CAPS) will conduct pre and post surveys for seat belt programs and evaluate several types of survey information regarding seatbelt and child restraint usage rates as part of the “Click It or Ticket” campaign. The program will consist of waves of surveys, enforcement and media blitzes, carefully scheduled to maximize public understanding of restraint use. CAPS’ role will be to: (1) contract the conduction of annual pre and post observational survey of vehicle belt usage and child restraint usage throughout Alabama according to the NHTSA approved Sampling, Data Collection and Estimation Plan (2) perform an evaluation of the program results using scientific analyses of baseline observations before the STEP and post observations after it is completed and calculate the official seat belt usage rate for the State (3) collect results from all the various involved parties for their activities, (4) perform analysis of data generated through telephone polls, media campaign data and enforcement data and (5) compile the project report for “Click It or Ticket” 2014 (6) contract the conduction of the child restraint observational survey (7) analyze survey data and compute child seat belt usage rate for State. (8) produce report on results of child restraint observational surveys. (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 *NHTSA Countermeasures that Work* references to Click It or Ticket have been presented above for those projects. This is a mandatory part of that effort.

**Total FY 2014 Allotment = \$187,141.49 (Funding Source – Section 405b)**

#### **405c Planned Activities:**

##### **Traffic Safety Records Improvement Program:**

We have an active Traffic Records Coordinating Committee (TRCC) in Alabama. AOHS will continue funding for the development of several projects such as a data entry system for EMS data for use in the field, continuing work on the EMS analysis portal, completing and deploying MapClick which is the new mapping tool in MOVE and developing additional forms for the paperless office (eForms) for law enforcement within the MOVE environment. One other phase of this project is to continue to maintain the Safe Home Alabama web site, a comprehensive site for all traffic safety interests in the state.

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

**Total FY 2014 Allotment = \$451,358.46 (Funding Source – Section 405c)**

#### **408 Planned Activities:**

##### **Electronic Patient Care Reports (ePCR) Program:**

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*

**Total FY 2014 Allotment = \$60,000.00 (Funding Source – Section 408)**

#### **410 Planned Activities:**

##### **Statewide High Visibility Impaired Driving Enforcement Campaign:**

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 State Highway Patrol (Department of Public Safety). This campaign will begin in August and conclude on Labor Day.

*NHTSA Countermeasures that Work* (Page 1-21) 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 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.

**Total FY 2014 Allotment = \$200,000.00 (Funding Source – Section 410)**

##### **Statewide High Visibility Impaired Driving Enforcement Campaign (Paid Media):**

As a part of the nationwide impaired driving campaign to reduce impaired driving-related fatalities, Alabama will participate in the High Visibility Impaired Driving Enforcement Paid Media Campaign. This campaign will begin in August and conclude on Labor Day.

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

**Total FY 2014 Allotment = \$400,000.00 (Funding Source – Section 410 PM)**

##### **Traffic Safety Resource Prosecutor Program (TSRP):**

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 related cases. Additionally the goals of this program will emphasize:

- Practical impaired driving Course: Nuts & Bolts
- Handling the Experts
- Legal Updates
- Search & Seizure
- Jury Selection
- Coordinate Drug Recognition Expert (DRE) Program

According to *NHTSA Countermeasures that Work* (Page 1-26), “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 is in the process of developing one for JOLs.”

**Total FY 2014 Allotment = \$167,052.12 (Funding Source – Section 410)**

## **State Traffic Safety Trust Fund Planned Activities:**

### **Alabama Yellow Dot Program**

This grant will provide funding for the continued implementation of the Yellow Dot Program for Senior and At Risk Drivers. The Northeast Alabama Highway Safety Office will take the lead role in the implementation of the Yellow Dot Program throughout all regions of the State of Alabama and will coordinate the forming and training of coalitions of Law Enforcement, Fire, EMS and Senior Groups.

The “Yellow Dot” program provides detailed medical information that can be crucial following a crash. Participants of the program receive a “Yellow Dot” decal, a “Yellow Dot” folder and an information form with the participant’s name, an identifying photo, emergency contact information, personal physicians’ information, medical conditions, recent surgeries, allergies and medications being used. A “Yellow Dot” decal on the driver’s side rear window of a vehicle alerts first responders to check in the glove compartment for the corresponding “Yellow Dot” folder. Having this information following a crash helps first responders positively identify the person, get in touch with family or emergency contacts and ensures that the person’s current medications and pre-existing medical conditions are considered when treatment is administered for injuries. Because of the novelty of this program it has not been considered in *NHTSA Countermeasures that Work*; however, we feel that it will be added as soon as its many benefits are established.

**Total FY 2014 Allotment = \$75,000.00 (Funding Source – State Traffic Safety Trust Fund)**

**Support the Center for Advanced Public Safety (CAPS):**

CAPS at the University of Alabama develops and maintains the CARE program which is the software used for all traffic crash and safety analysis done in Alabama. In exchange for the support that CAPS receives from ADECA LETS, CAPS provides ADECA LETS with crash and traffic safety data throughout the year. This includes preparing reports and grant applications as required and providing answers for data request from across the state that comes up throughout the year. CAPS also provides technical support, training, and maintenance on CAPS software products like eCite, eCrash, eForms, MapClick and others.

Traffic Safety Information Systems are specifically excluded from *NHTSA Countermeasures that Work*. However, it is well known and commonly accepted that without crash, citation, EMS, drivers' license, registration, and many other types of traffic records data, it would be 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 2014, and studies have been conducted and will continue to be updated and continually and pushed out on the [www.safehomealabama.gov](http://www.safehomealabama.gov) web site.

**Total FY 2014 Allotment = \$605,340.30 (Funding Source – State Traffic Safety Trust Fund)**

## **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.

### **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 safety 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 safety 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?



# OCCUPANT PROTECTION PLAN FOR STATE OF ALABAMA FY 2014 – SECTION 405B

## Executive Summary

This document presents the strategic plan for all restraint programs conducted in Alabama with special emphasis on those that are proposed to be funded under the MAP-21 405B Occupant Protection Grants section for FY2014. The Alabama Office of Highway Safety (AOHS) has developed a comprehensive highway safety program on an annualized basis since the early 1970s for the purpose of reduction in traffic crashes, fatalities, and injuries on public roads. As demonstrated by the annually documented Highway Safety Plan (HSP), this program has been evidence driven and reflective of the particular issues within the State. These HSPs were developed to assure that traffic safety resources were used in an optimal manner to bring about the maximum traffic safety benefits to the roadway users of the State, and they have been improved annually to that effect.

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.” Since Alabama’s 2012 restraint survey indicated that their usage rate was 89.5%, Alabama must qualify as a lower seat belt use rate. Alabama is applying as a lower use rate state by meeting at least three of the six programmatic criteria. The three that the state meets are:

- Primary Seat Belt Use Law,
- Seat Belt Enforcement, and
- Occupant Protection Program Assessment

*Problem Identification.* The AOHS conducts ongoing problem identifications for all traffic safety issues, including occupant protection. Special problem identification studies are performed when any new issues arise, or for all countermeasures for which discretionary funds are expended. The analytical procedures employed for occupant protection are presented in the Problem Identification section of this document. The basic goal of this evidenced based analytical process is to evaluate the overall countermeasure strategy, and once that is resolved, to use the analyses to fine-tune the particular countermeasures that are implemented. This includes all of the countermeasures that are presented in this plan as well as the particular tactics to be applied in their implementations. From the highest strategic point of view, Table 1 in the Problem Identification Section presents a comparison of the general weighting of each of the major issues that AOHS has been charged to address. The extract from Table 1 on the following page gives insight into the basic prioritization that was performed in resolving the overall state countermeasure strategies. The various categories are not mutually exclusive, and the detailed explanation for each crash type 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. Both the potential for reduction and the effectiveness in the countermeasures applied to a given category determine the optimal countermeasures to apply.

**Extract from Table 1**

<b>Crash Type (Causal Driver)</b>	<b>Fatal Number</b>	<b>Fatal %</b>	<b>Injury Number</b>	<b>Injury %</b>	<b>PDO No.</b>	<b>PDO %</b>	<b>Total</b>
1. Restraint Deficient*	366	3.53%	4,075	39.35%	5,916	57.12%	10,357
2. Impaired Driving	186	2.67%	2,661	38.19%	4,120	59.14%	6,967
3. Speeding	176	4.60%	1,779	46.49%	1,872	48.92%	3,827
4. Obstacle Removal	123	2.03%	2,102	34.75%	3,824	63.22%	6,049
5. Mature – Age > 64	103	0.90%	2,477	21.60%	8,887	77.50%	11,467
6. License Status Deficiency	97	1.53%	2,048	32.36%	4,183	66.10%	6,324
7. Youth – Age 16-20	91	0.43%	4,790	22.51%	16,400	77.06%	21,281
8. Motorcycle	89	4.65%	1,289	67.42%	534	27.93%	1,912
9. Ped., Bicycle, School Bus	88	4.36%	1,004	49.70%	928	45.94%	2,020
10. Pedestrian	78	9.01%	647	74.71%	141	16.28%	866

Table 1, which is further detailed and explained in the Problem Identification Section below, is at the highest level of crash data analysis. Two terms are introduced in this section to facilitate the discussion:

- Restraint-Deficient Crashes (RDC) – any crash in which one more of the occupants of any involved vehicle (including the driver(s)) were not properly restrained; and
- Child Restraint-Deficient Crashes (CRDC) – 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.

This section of the plan will illustrate the two types of problem identifications that were performed for restraint deficiencies:

- By locations with the highest RDC and CRDC hotspots (detailed in Attachment A); and
- General information mining of the crash records to determine over-represented characteristics of RDC and CRDC crashes in order to guide the selective enforcement and all other countermeasures applied (detailed in Attachment B).

The Problem Identification Section given in this Appendix is itself a summary of these analyses, which will not be repeated here. The full details and results of the two analyses are given in Attachments A and B, respectively, to this Appendix.

*Legislation.* The Legislation Section 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. 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 seatbelt 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.

While the State’s child restraint law is quite comprehensive, 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 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/GovAgencies/ALLegislature\(SSCC\).aspx](http://www.safehomealabama.gov/GovAgencies/ALLegislature(SSCC).aspx)

*Data Driven Enforcement Programs (DDEP).* This section demonstrates how the problem identification efforts translate themselves into activities with the goal of being the most effective use of restraint dedicated resources statewide. It details three major enforcement activities:

- General data driven enforcement programs (DDEP) that will take place throughout the year;
- Click It Or Ticket (CIOT), which is part of the highly focused National effort; and
- Child Restraint Data Driven Enforcement Program that will supplement the Occupant Protection of Children Program.

**An analysis of the citations given in the CY2010 through CY2012 time frame indicated that well over 96% of the state is covered by the State's restraint enforcement program.**

*Occupant Protection for Children Program.* This part of the occupant restraint program will be administered by the State Child Passenger Safety (CPS) Coordinator. This will include training for first time technicians, recertification, and renewals for trained technicians. Inspection stations will be available to the public. The technicians will ensure the child passenger restraints are installed correctly. The plan is to further reach out to underserved communities and technicians and to provide the services of 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 goal 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.* This section provides a review of the use of data and analysis for overall restraint program improvement. It is subdivided according to the follow categories:

- Observational survey of occupant protection and child restraint use. Pre and post surveys for seat belt programs will be conducted using the 2013 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 citation analysis. These are performed to assure that the citations issued are consistent with the locations and other demographics are consistent with those found to be most advantageous by the problem identification efforts.
- Continued problem identification and evaluation. The efforts exemplified in the Problem Identification section will be repeated, extended and updated as needed to assure the most effective distribution of resources that can be obtained from evidence-base and data driven decisions. In addition, several evaluation studies are described to determine program success and to improve the program in future years.

It would be impossible to accomplish all of the plans set forth in this document without statewide cooperation throughout the traffic safety community. To accomplish this, AOHS has forged key partner-

ships with the following entities, which will be described in detail in the context of the various programs:

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

Specific countermeasures within each of these categories given above were checked for their effectiveness estimates from the NHTSA-recommended document: *Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices, Seventh Edition, 2013*; which can be viewed at:

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

[This document will be henceforth referenced as “NHTSA Countermeasures that Work.”]

## Introduction

The Alabama Office of Highway Safety (AOHS) has developed a comprehensive highway safety program on an annualized basis since the early 1970s for the purpose of reduction in traffic crashes, fatalities, and injuries on public roads. As demonstrated by the annually documented Highway Safety Plan (HSP), this program has been evidence-driven and reflective of the particular issues within the State. These plans were developed to assure that traffic safety resources were used in an optimal manner to bring about the maximum traffic safety benefits to the roadway users of the State. As will be shown in the Problem Identification section below, occupant restraints surfaced as the most effective approach to crash injury severity reduction.

AOHS personnel have 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 has been incorporated into the Alabama SHSP. The major goals of both the HSP and the SHSP are to bring about a more effective statewide allocation of traffic safety resources, including funding and equipment, but most importantly, personnel.

It will be impossible to accomplish all of the plans set forth in this document without statewide cooperation 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 relationship with all other traffic safety stakeholders in the local communities assuring coordination among the occupant protection efforts.
- The University of Alabama Center for Advanced Public Safety (UA-CAPS) provides the information foundation for data-driven decisions, including the HSP document; data sources include crash, citation, EMS runs and other databases to enable the AOHS and the CTSP/LEL Coordinators and LELs to be assured that their traffic safety resources are being allocated most effectively.
- The Alabama Department of Public Safety officers are 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 data driven enforcement and other occupant protection projects.
- Alabama Department of Public Health provides data and subject matter knowledge for EMSIS and trauma data integration and use, and they have been instrumental in the past in performing restraint-use surveys.
- Traffic Records Coordinating Committee – 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 – involved to increase their level of readiness and proficiency for the effective prosecution of traffic related cases.

The HSP has reflected that seat belt and child safety seat usage can only be increased by a combination of legislation and use requirements, enforcement, communication, education, and other incentive strat-

egies. This document will begin by summarizing the results of an intensive problem identification that has been performed and 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 planned programs. A final section is devoted to occupant protection data and program evaluation.

## Problem Identification

### Procedure for the Problem Identification

Table 1, which provides the context for the problem identification results summarized in this section, is sorted so that the crash type category with the highest number of fatal crashes (fatalities in the case of occupant restraints) is listed first, descending to the crash type category with the lowest number of fatal crashes listed last.

**Table 1. Summary of Crash Severity by Crash Type – CY 2012 Alabama Data**

Crash Type (Causal Driver)	Fatal Number	Fatal %	Injury Number	Injury %	PDO No.	PDO %	Total
1. Restraint Deficient*	366	3.53%	4,075	39.35%	5,916	57.12%	10,357
2. Impaired Driving	186	2.67%	2,661	38.19%	4,120	59.14%	6,967
3. Speeding	176	4.60%	1,779	46.49%	1,872	48.92%	3,827
4. Obstacle Removal	123	2.03%	2,102	34.75%	3,824	63.22%	6,049
5. Mature – Age > 64	103	0.90%	2,477	21.60%	8,887	77.50%	11,467
6. License Status Deficiency	97	1.53%	2,048	32.36%	4,183	66.10%	6,324
7. Youth – Age 16-20	91	0.43%	4,790	22.51%	16,400	77.06%	21,281
8. Motorcycle	89	4.65%	1,289	67.42%	534	27.93%	1,912
9. Ped., Bicycle, School Bus	88	4.36%	1,004	49.70%	928	45.94%	2,020
10. Pedestrian	78	9.01%	647	74.71%	141	16.28%	866
11. Fail to Conform to S/Y Sign	32	0.52%	1,663	26.80%	4,510	72.68%	6,205
12. Utility Pole	30	1.32%	831	36.53%	1,414	62.15%	2,275
13. Non-pickup Truck Involved	30	0.68%	712	16.20%	3,653	83.12%	4,395
14. Construction Zone	23	1.03%	477	21.37%	1,732	77.60%	2,232
15. Roadway Defects – All	21	0.61%	807	23.56%	2,598	75.83%	3,426
16. Vehicle Defects – All	17	1.14%	350	23.46%	1,125	75.40%	1,492
17. Vision Obscured – Env.	13	1.21%	271	25.28%	788	73.51%	1,072
18. Fail to Conform to Signal	12	0.27%	1,306	29.49%	3,110	70.23%	4,428
19. Bicycle	9	1.46%	270	43.76%	338	54.78%	617
20. Child Restraint Deficient*	4	0.18%	347	15.22%	1,929	84.61%	2,280
21. Railroad Trains	1	0.83%	35	28.93%	85	70.25%	121
22. School Bus	1	0.18%	103	18.39%	456	81.43%	560

\* The Fatal, Injury and PDO numbers for the “Restraint Deficient” and “Child Restraint Deficient” are the total number of persons killed, injured and uninjured, respectively. This is different from the other categories in that they list the number of crashes in which such an injury severity was incurred.

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. Clearly the disuse of occupant protective devices is one of the most critical factors in fatality causation. For this reason the State has put considerable em-

phasis on occupant protection, and extensive analyses have been performed in an effort to determine the best approach to increasing restraint use.

Given that occupant restraints are so important to fatality and injury reduction, the next step in the problem identification process is to determine the who, what, where, when and why of crashes involving non-restrained occupants, and thus to determine the best approaches for countermeasure implementation (i.e., the how). This starts by determining those types of crashes that were going to be targeted for occupant protection countermeasure implementation.

For the data driven enforcement program, specific locations were identified where there were concentrations of crashes involving unrestrained occupants. Once the hotspots were defined and the locations were found using the Critical Analysis Reporting Environment (CARE) software, the Community Traffic Safety Program (CTSP/LEL) Coordinators from across the state were 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 their focused efforts.

Using the reports and maps developed for each region, the CTSP/LEL Coordinators will develop a plan, including the time schedule and work assignments, for their region that focuses on the hotspot locations. The goals set on a regional basis will be in line with the goals and strategies laid out in that section.

## Problem Identification Results

### Data Driven Enforcement Program (DDEP) Hotspot Analysis

For the FY2014 analysis, data from three prior years (CY 2010-2012) 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 following table gives the numbers of hotspots found according to the various location types and criteria.

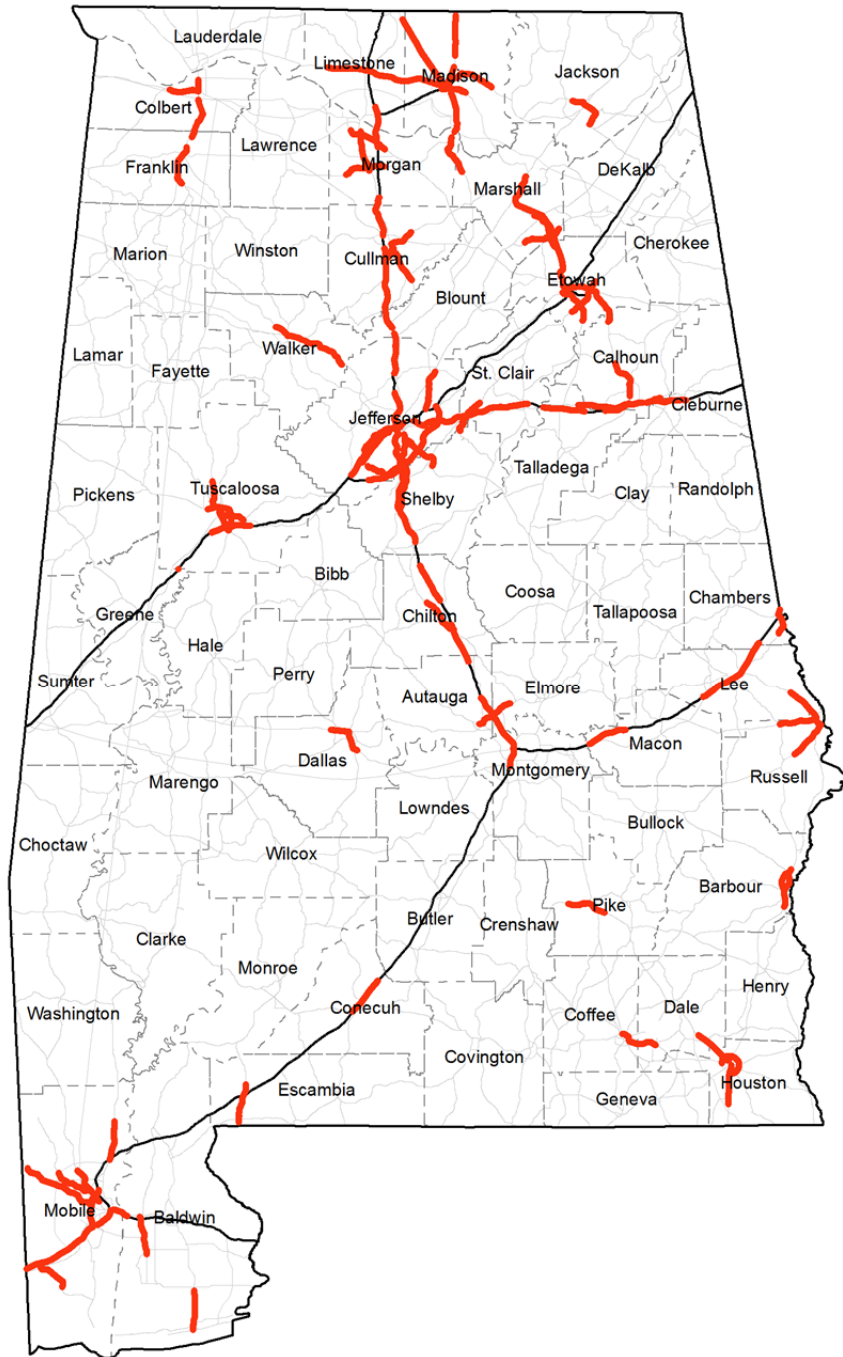
Hotspot Target	Location Type	Number of Hotspots	Criteria
General	Mileposted	98	$\geq 20$ RD Crashes in 10 Miles
General	Intersection	90	$\geq 4$ RD Crashes at Intersection
General	Segment	71	$\geq 4$ RD Crashes on Segment
Child Restraint	Mileposted	53	$\geq 4$ CRD Crashes in 10 Miles
Child Restraint	Intersection	62	$\geq 2$ CRD Crashes at Intersection
Child Restraint	Segment	15	$\geq 2$ CRD Crashes on Segment
<b>TOTAL</b>		<b>389</b>	

These restraint-deficient hotspots were defined, listed and mapped for ease of identification by the CTSP/LEL Coordinators and their respective local police agencies. The plans for each of the regional coordinators for the coming year will focus on these hotspot areas, as this part of their funding will be restricted to working restraint-deficient hotspot locations defined for each region. The details for this plan are given in Attachment A.



The general strategy is to require the CTSP/LEL Coordinators to focus their plans primarily on restraint-deficient hotspot locations identified for their respective regions. By doing this they will be focusing on the most critical problem areas and the biggest killers. Display 1 below shows a map of the most critical restraint-deficient segments on the mileposted roadways of the state. There were 98 segments found of 10 miles in length that had 20 or more restraint-deficient crashes.

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.



**Display 1. Mileposted Unrestrained Hotspot Map**

**Table 2. Mileposted Hotspots by County within Region**

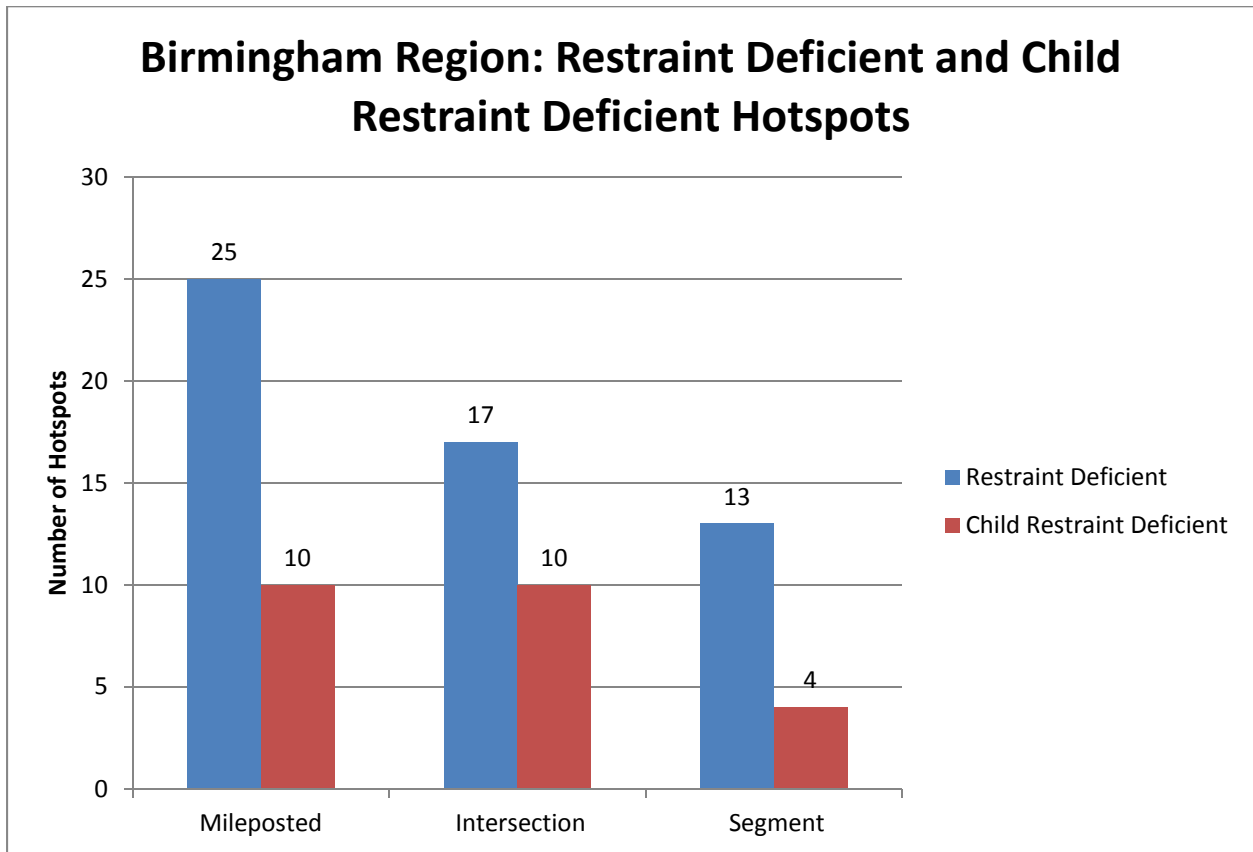
Region	County	Hotspots	Fatal Crashes	Injury Crashes	Total Crashes
	<i>TOTAL</i>	<i>98</i>	<i>1189</i>	<i>12477</i>	<i>22388</i>
<b>Birmingham</b>		<b>25</b>	<b>226</b>	<b>2224</b>	<b>4125</b>
	Bibb	0	12	71	102
	Blount	0	16	176	278
	Chilton	3	22	200	316
	Jefferson	13	80	923	1908
	Saint Clair	3	33	206	352
	Shelby	4	22	280	543
	Walker	2	41	368	626
<b>Central</b>		<b>9</b>	<b>132</b>	<b>1301</b>	<b>2379</b>
	Autauga	0	11	101	184
	Bullock	0	9	44	58
	Elmore	2	20	199	348
	Lee	2	29	323	697
	Lowndes	0	10	47	62
	Macon	1	10	94	151
	Montgomery	1	29	330	639
	Russell	3	14	163	240
<b>East</b>		<b>7</b>	<b>94</b>	<b>1151</b>	<b>2034</b>
	Calhoun	5	17	387	733
	Chambers	1	15	100	193
	Clay	0	6	38	58
	Cleburne	0	4	59	105
	Coosa	0	7	46	73
	Randolph	0	8	86	135
	Tallegdega	1	31	295	500
	Tallapoosa	0	6	140	237
<b>Mobile</b>		<b>13</b>	<b>151</b>	<b>1546</b>	<b>2933</b>
	Baldwin	2	39	416	783
	Escambia	1	23	155	274
	Mobile	10	89	975	1876
<b>North East</b>		<b>17</b>	<b>154</b>	<b>1872</b>	<b>3295</b>
	Cherokee	0	12	106	159
	DeKalb	0	14	169	275
	Etowah	5	23	349	593
	Jackson	1	20	215	355
	Madison	7	49	702	1321
	Marshall	4	36	331	592
<b>North</b>		<b>15</b>	<b>142</b>	<b>1555</b>	<b>2885</b>
	Colbert	2	13	146	286
	Cullman	5	22	274	562
	Franklin	1	8	110	202
	Lauderdale	0	17	223	437
	Lawrence	0	16	86	151
	Limestone	2	30	213	365
	Marion	0	6	116	163
	Morgan	5	21	298	588
	Winston	0	9	89	131

<b>South East</b>		<b>6</b>	<b>107</b>	<b>1228</b>	<b>2067</b>
Barbour		1	9	80	131
Butler		0	9	130	205
Coffee		1	15	158	277
Covington		0	15	145	270
Crenshaw		0	7	55	88
Dale		0	13	99	168
Geneva		0	6	100	158
Henry		0	5	40	69
Houston		3	15	271	460
Pike		1	13	150	241
<b>South West</b>		<b>2</b>	<b>104</b>	<b>725</b>	<b>1124</b>
Choctaw		0	8	49	85
Clarke		0	13	112	184
Conecuh		1	15	112	165
Dallas		1	20	140	231
Marengo		0	12	80	108
Monroe		0	12	97	167
Washington		0	14	70	104
Wilcox		0	10	65	80
<b>West</b>		<b>4</b>	<b>79</b>	<b>875</b>	<b>1546</b>
Fayette		0	1	43	69
Greene		0	7	53	76
Hale		0	4	55	73
Lamar		0	3	47	81
Perry		0	7	31	39
Pickens		0	9	40	73
Sumter		0	8	54	80
Tuscaloosa		4	40	552	1055

**Table 3. Summary of Hotspots by Crash and Region**

Region	Hotspots	Regional	Fatal Crashes	Regional	Injury Crashes	Regional	Total Crashes	Regional
Birmingham	25	25.5%	226	19.0%	2224	17.8%	4125	18.4%
North East	17	17.3%	154	13.0%	1872	15.0%	3295	14.7%
North	15	15.3%	142	11.9%	1555	12.5%	2885	12.9%
Mobile	13	13.3%	151	12.7%	1546	12.4%	2933	13.1%
East	7	7.1%	94	7.9%	1151	9.2%	2034	9.1%
Central	9	9.2%	132	11.1%	1301	10.4%	2379	10.6%
South East	6	6.1%	107	9.0%	1228	9.8%	2067	9.2%
South West	2	2.0%	104	8.7%	725	5.8%	1124	5.0%
West	4	4.1%	79	6.6%	875	7.0%	1546	6.9%
<b>TOTAL</b>	<b>98</b>		<b>1189</b>		<b>12477</b>		<b>22388</b>	

Analyses similar to those above 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 Birmingham Region by Type**

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 Birmingham Region (an example of one of nine regions). The entire set of hotspot analyses were repeated for Child Restraint Deficient crashes. Officers will 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.

Details of the specific locations found during the problem identification analyses are given in Attachment A. The analytical arrangement is as follows:

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

## Other Problem Identification Analysis Results

A detailed problem identification to determine the “who, what, when, where and why” of restraint-deficient crashes is given in Attachment B. This information was forwarded to the CTSP/LEL Coordinators so that they could provide guidance in the data driven enforcement and public information aspects of the various projects. The following summarizes these results:

- Geographical Factors
  - Counties with the greatest over-representation factors for unrestrained driver crashes include Walker, Talladega, Escambia and Jackson.
  - The number of crashes involving drivers who use no restraints is greatly over represented in rural areas in comparison to the urban areas. The odds ratio for rural areas is well over twice what would be expected if rural and urban restraint use were the same.
  - The most over-represented (worse) areas are the rural county areas in Walker, Mobile, Cullman, and Escambia.
  - The most under-represented (best) cities are Montgomery, Birmingham, Mobile, and Tuscaloosa.
  - Crash incidents with no driver restraints being used are greatly over represented on county highways, with 2.5 times the expected number of crashes. County rwas the only roadway classification that was over-represented.
  - In the analysis of locale, crashes involving no restraints are most commonly over-represented in open country areas.
- Time Factors
  - The weekend days are the most over-represented 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, over-representation 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 7 PM time periods. Additional cross-tabulations were performed for specific target groups (see below).
- Crash Causal Factors
  - The over-representation factors indicate that certain risk-taking behaviors are often associated with crashes in which restraints are not used, including DUI, over the speed limit, running off the road, aggressive operation, and fatigue/sleep.
  - Crashes attributed to drivers who used no restraints are greatly over represented in vehicles with model years 1960-1989, which could be attributed to the lack of standard safety restraints in 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 over represented 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 over represented 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 over-represented on interstate and state roadways. “Possible Injuries” were over-represented on municipal highways.
- Analysis of injuries shows that the proportion of injuries (including fatalities) in unrestrained driver crashes is over represented from 1 to 6 injuries per crash. Crashes without restraints are clearly causing much more severe injuries.
- The proportion of fatalities in general as well as the proportion of multiple fatality crashes is dramatically over represented in crashes where the causal driver is unrestrained.
- As expected, ejection of the unrestrained driver is over represented, indicating one major cause for many fatalities in which safety equipment is not properly utilized.
- All types of injuries, including fatalities, are consistently over represented in crashes where no restraints were used.
- Driver Demographics
  - Analysis of individual driver ages indicates that crashes involving no restraints are over represented in drivers in and immediately above the teen driver classification (age range 16-35).
  - Male drivers account for a majority of crashes in which restraints are not used, and they are over represented by a factor of 1.29.
- 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 this 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 counterparts, they further compounding the problem at these times. The 16-20 would also reasonable be expected to be over-represented in the week-day after school hours in the proximity of their schools and after-school activities.

### **Focus Area and Age Groups**

The problem identification clearly identified rural areas and the 16-25 year old age group for more intensive selective enforcement. Some preliminary analyses to identify specific 10-mile locations for these specific targets found one of two things: either the locations found were highly over-lapping the locations specified above in the general restraint deficiency locations, or else the number of crashes that qualified in the focus group was well below that for the locations already established to have the highest potential for improvement. Therefore, the decision was made to train the officers to be particularly sensitive to these focus areas and age groups rather than to direct them specifically to target locations that were not already identified above.

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.
  - Combine restraint deficiency enforcement with DUI enforcement since the most critical times for both 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 nighttime hours.
  
- Age Group 16-20
  - Give special attention to male drivers.
  - Give special attention 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.”
  - Combine restraint deficiency enforcement with DUI enforcement since the most critical times for both 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.



## Program Management

The Alabama Office of Highway Safety (AOHS), which is the state highway safety office, provides centralized leadership, planning, implementation, and coordination on all State occupant restraint programs. As demonstrated by the problem identification summary above, and by the data and program evaluation efforts in that section below, AOHS monitors existing programs, and modifies them based on their progress and success. New programs are developed as they are shown to have a high potential for success.

AOHS will administer the program with the support of the CTSP/LEL Coordinators and the other partner state agencies that will be involved. As part of this effort, AOHS will do the following:

- Develop a vision and mission statement and monitor the program to assure that it stays consistent with these intended ideals;
- Develop goals consistent with the vision/mission statement from which measurable objectives are established,
- Evaluate the effectiveness of the program against these objectives;
- 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.

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

### Vision and Mission Statements

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

**To create the safest surface transportation system in the Southeast 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.**

The current percentage of occupants not taking advantage of available restraints has been measured to be about 10% with random variation from year to year. It is imperative that a culture change take place on the part of this 10% of the State's driving base, recognizing that this might be an even smaller portion of the total motoring public, based on the fact that those who are risk takers will be much more apt to be involved in crashes.

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.**

This mission statement recognizes that the following ideals that will need to become part of the culture of the general public, starting with all members of the traffic safety community within the State:

- *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.
- *Focus on occupant restraints.* When considering crashes in Alabama and the damage that they cause in terms of human loss and suffering, increased injury severity resulting from a failure to use occupant restraints must be recognized as one of the most critical issues. All organizations and individuals in the area of traffic safety must be committed to improvement in this area. Enforcement plans developed by the state's safety coordinators will reflect this focus, and data driven enforcement funding will be concentrated on hotspot crash locations that have been identified as problems. In addition, all of the strategies discussed below will become part of the overall safety culture.
- *Teamwork and Diversity.* Recognize that these ideals will only be attained through the dedication to cooperative efforts among a wide range of federal, state and local organizations as well as private advocate groups. All highway users and user groups must be adequately represented, and all sub-disciplines will be given the opportunity to provide input and information to improve the overall program.

By focusing efforts on increased restraint use, lives have been saved in the past and will be saved in the future. The severity increase in each crash involving unrestrained passengers is caused by the *choice* not to use restraints. By changing driver and passenger behaviors in this regard, a measurable increase in restraint use should be forthcoming as well as a measurable decrease in crash severity.

## **Goals and Strategies**

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. Consistent with the State's dedication to the ultimate goal of zero deaths, and the Toward Zero Deaths (TZD) approach, it is our 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.

Because it is impossible to identify the cause of fatalities saved, the overall strategic program goal for all programs in the state will be referenced, 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

894, 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 25<sup>th</sup> year it amounts to 4% of the previous year.

Unlike the long range goal, short range goals are established each year. These goals 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 looking at 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, 2011 FARS Data must be used to develop the plan for fiscal year 2014. The short range goals will be compared against metrics obtained during calendar year 2013, while long-range goals concentrate on statistics for calendar years 2009-2011.

Goals cannot be progressively realized without appropriate performance measures. These will be given with the goals along with a description of the data sources used. 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).

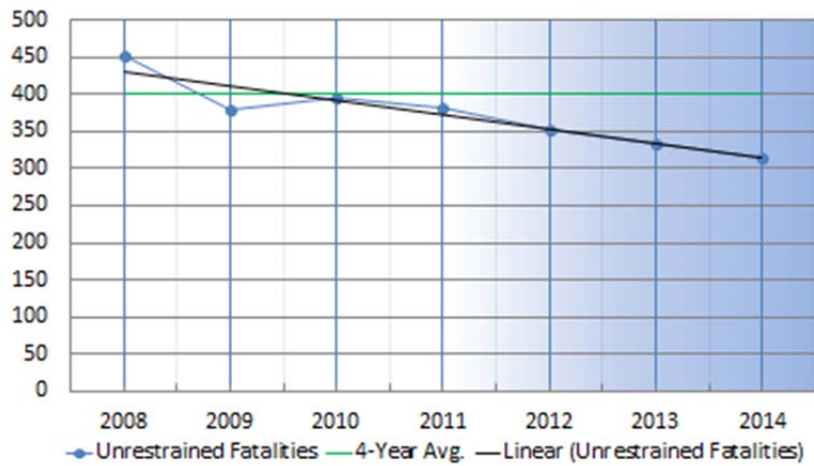
Only injury and fatal collisions will be included in the crash frequency goals. Goals will now be presented in the following categories (reference to the FY 2014 HSP):

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

**HSP Metric C-4.** Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS).

2008	2009	2010	2011	Goal
452	378	394	382	375

**Number of Unrestrained Vehicle Occupant Fatalities**



Based on the above analysis of the FARS crash data from 2008 through 2011 (shaded area is projected), the goal for calendar year 2014 is a reduction from the 402 baseline to 375 unrestrained occupant fatalities

**HSP Metric B-1.** The observed seat belt use for passenger vehicles, front seat outboard occupants (survey).

2009	2010	2011	2012	Goal
90.0%	91.4%	88.0%	89.5%	90.5%

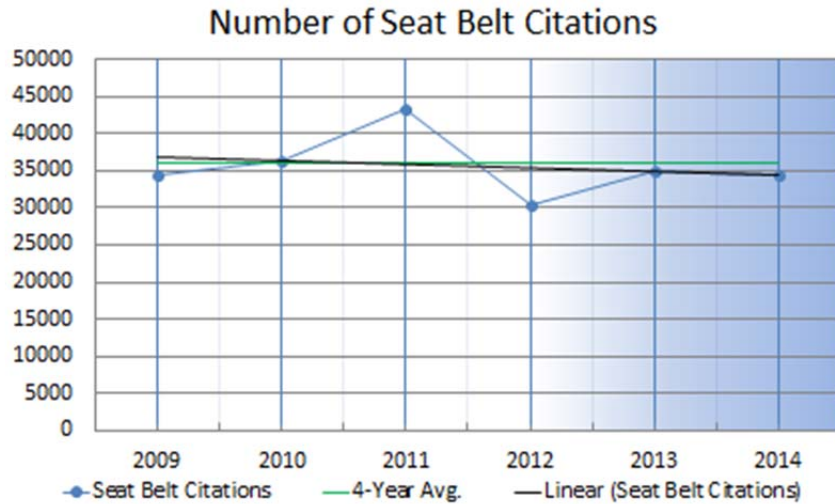
**Observed Seat Belt Use**



Based on the above analysis of the Alabama seatbelt survey data from 2008 through 2012 (shaded area is projected), the goal for calendar year 2014 is an increase from the baseline of 89.72 to 90.50% seat belt use.

### HSP Metric A-3. Number of seat belt citations

2009	2010	2011	2012	Goal
34,328	36,341	43,384	30,425	36,500



Based on the above analysis of the Alabama citation data from 2009 through 2012 (shaded area is projected), the goal for calendar year 2014 is to maintain at least 36,500 speeding citations, a slight increase from the baseline of 36,120.

### 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. The Safety 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 the Alabama Department of Public Health and UA-CAPS, as follows:

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

Performance Measures	2007	2008	2009	2010	2011	2012
Safety Belt Usage Rate	82.30%	86.10%	90.00%	91.43%	88.00%	89.50%
Child Safety Seat Usage Rate	92.30%	88.20%	94.91%	93.12%	95.83%	93.00%

*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 2013 is from the baseline of 89.5% in CY 2012 to 91.0% in 2014.
- The goal for the statewide child safety seat usage that will be measured during CY 2013 is from the baseline 93.00% in CY 2012 to 94.0% in 2014.

## Strategies for FY2014

The following outlines the strategies to be applied during FY 2014:

- Planning and Administration – The Alabama Office of Highway Safety (AOHS) is charged by the Governor with the responsibility for implementing the state's highway safety efforts to reduce traffic deaths, injuries and crashes; as such, they will continue to perform the overall administrative functions for the programs and projects implemented.
- The nine Community Traffic Safety Programs (CTSP/LEL) projects are seen to be an essential element in maintaining distributed governance over the statewide traffic safety program, and they will be maintained, including the support of the CTSP/LEL Coordinators and the administrative support for their offices.
- The University of Alabama Center for Advanced Public Safety (UA-CAPS) is seen to be vital in providing 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 nine local Hotspot Data Driven Enforcement Program (DDEP) projects, one within each of the CTSP/LEL regions. Additionally, a statewide DDEP project will be conducted in conjunction with the Alabama Department of Public Safety (DPS). The efforts of all CTSP/LEL data driven enforcement projects will be focused on hotspot locations. 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.
- 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 2014.
- Participate in national "Click It or Ticket" campaign on the statewide level.

## **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.

## **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 seatbelt 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 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 includes 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 extremely 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 that 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/GovAgencies/ALLegislature\(SSCC\).aspx](http://www.safehomealabama.gov/GovAgencies/ALLegislature(SSCC).aspx)



# **Data Driven Enforcement Program (DDEP)**

## **General Program Overview**

The State will engage in an evidence-based data driven enforcement effort to assure that its child restraint and occupant protection laws are vigorously enforced. The AOHS law enforcement liaisons (LEL) are synonymous with the CTSP Coordinators, but to emphasize this they will be referenced as CTSP/LELs in this context. The following provides a summary of the planned enforcement (and enforcement-related) efforts that will be made throughout the 2014 fiscal year:

- Totally involve the CTSP/LEL Regional Coordinators. In addition to the efforts of the state office in Montgomery, there is a Coordinator within each of the nine CTSP/LEL Regions across the state. Each CTSP/LEL Coordinator has been charged with focusing on the occupant restraint hotspot locations outlined for their region. In order to coordinate the efforts within the nine regions, a CTSP/LEL office is located in each region. Each of these regions is responsible for the problem areas within their region and will supply reports and information back to the central office regarding the efforts taking place within their region.
- Obtain analytical support from the University of Alabama Center for Advanced Public Safety (UA-CAPS), which has developed and currently maintains the CARE program, which is the software used for all traffic crash and safety analysis done in Alabama. UA-CAPS will provide continuous updates of crash and other traffic safety (e.g., citation) data throughout the year. This includes updates of the analyses given in the problem identification above, preparing reports and providing answers for information requests related to the occupant safety program.
- Conduct Data Driven Enforcement Program (DDEP) projects. There will be nine local DDEP projects during the coming year as well as one statewide DDEP project focusing specifically on occupant restraint enforcement. Each of these DDEP projects will be located at one of the problem locations that have been identified across the state. One DDEP project will take place in each of the nine CTSP/LEL regions, and the statewide DDEP project will be conducted in conjunction with the Alabama Department of Public Safety. General Law Enforcement activity including restraint enforcement will be sustained for twelve (12) months, and the special restraint-focused DDEP project will not diminish the normal efforts being made in this regard.

## **Data Driven Enforcement Programs (DDEP)**

The State's ongoing Data Driven Enforcement Program (DDEP) plan targets countermeasures that result in lower injury and fatality rates by enabling law enforcement at a local level to enforce non-use of occupant and child restraints laws. Increasing citation rates has shown to have positive effects on lowering the incidence of the offense in the location where the citations are given. In addition to the special Memorial Day and the Labor Day campaigns, Alabama will also conduct sustained enforcement throughout the year.

The Data Driven Enforcement Program (DDEP) is developed using traffic crash data, as illustrated in the Problem Identification Section above. Each potential location for enforcement is selected based upon the determination of restraint-deficient hotspots. Fatalities due to non-use or inappropriate use of occupant and/or child restraints are seen in both adult and child populations and remain over-represented statistically as compared to the national data. Education efforts will be offered to augment the high visibility enforcement of the primary-enforcement occupant restraint laws.

The project with regional coordinators and the Alabama Department of Public Safety, and local law enforcement involves overtime pay for officers to conduct a statewide data driven enforcement program aimed at identified segments of roadway with restraint-deficient crashes (i.e., crashes where one or more occupants, including the driver, were not properly restrained). The strategy of this effort is to reduce these hotspots in the state, or 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 DDEP projects to be effective.

## **Seat Belt Enforcement Plan**

The state is divided into nine Community Traffic Safety Programs/Law Enforcement Liaison (CTSP/LEL) regions across the state. Within these groups, law enforcement agencies at all levels are in partnership to execute the DDEP program throughout the year. The Alabama Department of Public Safety will also be a full partner in all of these efforts.

The specific locations of enforcement activities will be deployed to those specific segments defined by the problem identification above, specifically in Tables 2 and 3 in the “Data Driven Enforcement Program Hotspots Analysis” section.

To the extent that resources will permit, the DDEP program will be supported my media efforts similar to those described below for the Click It or Ticket Program described below.

The total population percentage covered by the DDEP program will be over 96 percent. The Alabama Department of Public Safety (DPS) will participate in the DDEP.

## **Click It or Ticket (CIOT)**

### **Overall CIOT Summary**

Since passing the Primary Seatbelt Law in 1999, Alabama continues to steadily improve its seatbelt and child restraint use rates. As part of this process, a Data Driven Enforcement Program (DDEP) 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:

- The State will conduct an aggressive “Click It or Ticket” (CIOT) campaign (generally, paid media) in close concert with NHTSA coordination. As part of the nationwide initiative to increase seat belt usage, the will be a CIOT High Visibility Paid Media campaign. This campaign will be scheduled in May and concluding on the Memorial Day Holiday. This has been a highly successful program in the past several years. The State will continue to lend its full support to the program in the coming year.
- A statewide CIOT High Visibility Enforcement campaign will be conducted in addition to the paid media, we will have High Visibility Enforcement program for a three week period. The enforcement program will consist of members from the Municipal Law Enforcement Agencies, County Sheriffs and State Highway Patrol (Department of Public Safety).
- An additional effort in conjunction with CIOT will be supported to conduct surveys, perform analyses, and verify certification. UA-CAPS will conduct pre and post surveys for seat belt

programs and evaluate several types of survey data regarding seatbelt 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.

- This data driven enforcement program will involve multiple agencies and organizations that will participate in this effort, under the leadership of the Law Enforcement and Traffic Safety (LETS) Division of the Alabama Department of Economic and Community Affairs (ADECA). 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.
- The University of Alabama Center for Advanced Public Safety (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 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 polls, media campaign data and enforcement data;
  - Compiling the project report for "Click It or Ticket" 2014;
  - Contracting out the performance of the child restraint observational survey;
  - Analyzing survey data and computing child seat belt usage rate for State
  - Producing a report on results of child restraint observational surveys.

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

<b>Weeks</b>	<b>Dates</b>	<b>Activities</b>
1-2	April 21-May 4	Statewide Observational Survey (Baseline)*
3-8+	May 5-June 15	Earned Media for CIOT
4-5	May 12-26	Paid media for CIOT
5-6	May 19-June 1	Enforcement for CIOT
7-8	June 2-15	Statewide Observational and Telephone Surveys*

\* Activities that involve data collection and analysis

The problem identification for the CIOT DDEP program is documented above. This section will continue by presenting the media plan, followed by the plan for the CIOT evaluation.

### **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, the Drive Sober or Get Pulled Over campaign will include seat belt enforcement to help deter restraint non-use. These campaigns have been successful in that survey data after the 2011 campaign revealed that 96 percent 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 conducted a zero-tolerance enforcement of seat belt laws.

Further, electronic billboards, the Alabama Live website and statewide newspapers will be employed to reach the target audiences aimed at yielding increases in seat belt and child restraint use. Previous efforts resulted in the Alabama Department of Commerce placing 15,512 paid media and 7,144 bonus commercials for Click It or Ticket.

The following will summarize the anticipated paid media campaign, which will be engaged based on parameters outlined below:

- Broadcast Television. Experience has shown that broadcast television buys provide the greatest reach. The buys will be focused on programming in prime times: morning drive (M-F, 7A-9A) and evenings (M-F, 5P-Midnight). Selected weekend day parts, especially sporting events, will also be employed if the media programming is assessed to appeal to the target group.
- Cable Television. The large number of cable networks in Alabama can be effective in building frequency for the male 16-34 target market. The buys will focus on the following day parts: morning drive (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 the target areas.
- Radio. The campaign will target that same key at-risk group, 16-34 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.

Commercials will be produced for television and radio to emphasize the Click It or Ticket theme. Advertisements for electronic billboards, newspaper and AL.com will relate back to the video media to the extent possible. Billboards will be used to reinforce the radio and TV commercials. At least three designs will be developed to correspond to and reinforce the video commercials. The AL.com website will be employed in the planned program. This is the state's leading news website, and they provide excellent coverage.

## CIOT Evaluation

This project will be evaluated using methods and procedures approved by NHTSA. This is the first 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. UA-CAPS will manage the process for the observational surveys, phone survey evaluation of the media campaign, and be involved in evaluation and report generation portions of the project.

UA-CAPS will conduct overall coordination between other agencies and consultants participating in the project. This will keep UA-CAPS in close contact during the design of data collection forms and procedures, will help ensure timely and accurate data collection, and will help ensure that UA-CAPS receives data and preliminary analyses in a timely manner. Data observation, collection and processing will be in accordance with NHTSA-approved techniques.

Basic phone and observational surveys will be used to gather data for the in-depth evaluation. The target will be the measurement of proper restraint use by drivers and front seat outboard passengers in passenger motor vehicles. The phone surveys will be conducted throughout the state. The observation surveys will be 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.

In addition to direct field measurement of restraint use, a parallel thrust will measure changes in public awareness and attitude. This will be based upon statewide telephone surveys.

With regard to the observational surveys, UA-CAPS will:

- Contract a highly qualified vendor to recruit and train the Observational Surveyors, and to conduct the three observational surveys described within this document
- Assign observation locations and dates to the Surveyors, and
- Collect and process the raw data produced by the Surveyors.

In conducting the evaluation, UA-CAPS will require the assistance of other agencies and organizations, as follows:

- The Alabama Department of Commerce (ADC) will:
  - Be in charge of the media portion of the campaign;
  - Contract with another groups to produce 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 and electronic billboards;
- Update the web site;
- Produce promotional 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 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.
- The abt SRBI group, which performed the phone survey for the 2001 through 2013 STEP programs, will be engaged to conduct the telephone surveys that will involve:
  - Design and prepare the telephone questionnaire instrument (with advice from LETS and UA-CAPS);
  - Conduct a post survey only this year;
  - 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. The remainder of this section will describe the results of past evaluation efforts, which will be improved by the NHTSA recommended sampling that will take place as part of the 2014 evaluation.

### **General Restraint Data Driven Enforcement Program**

The Problem Identification Results section above, along with Attachment A 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 Data Driver Enforcement Programs.

### **Child Restraint Data Driven Enforcement Efforts**

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. Attachment A 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.

## **Communication Program**

In order to keep the components of the various programs together, communication efforts have been described within each program. These will be an integral part of the enforcement effort, recognizing that the effects of the law enforcement efforts can be dramatically increased by effective and relatively inexpensive paid and earned media campaigns. They will also be integrated into the other child protection programs.

The AOHS and their partners, such as CAPS-UA 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. Brief, but very focused, messages are frequently pushed out through these means. This is an especially effective avenue of reaching younger audiences. These events are also promoted on agency websites and the [www.SafeHome.Alabama.gov](http://www.SafeHome.Alabama.gov) website that is comprehensive of all of the 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 get the word out.

A major goal of the CPS program (detailed in the next section) for FY2014 will be to increase communication and awareness on the issue of CPS in each of the nine CTSP/LEL regions. The statewide CPS website is heavily utilized by parents and technicians alike. The website ([www.cpsalabama.org](http://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.

## **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. This will include training for first time technicians, and recertification for trained technicians. Inspection stations will be available to the public. 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 ninth year in FY2013. The single CPS coordinator and instructors are addressing the needs of the nine CTSP/LEL regions. The plan for FY2014 is to further reach out to underserved communities and 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 FY2006. In that year, a single CPS coordinator was appointed, augmented with three additional instructors from the CTSP/LEL offices and tasked them with addressing CPS from a regional perspective. The CPS program will be continued through FY2014 with an emphasis on teaching new technicians in communities throughout the 9 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 the child restraint usage within the State of Alabama, resulting in a reduction of fatalities and serious injuries.

## **Alabama Child Passenger Safety (CPS) Program**

The Alabama CPS program for FY2014 will be staffed by the state coordinator. The single CPS coordinator handles all CTSP/LEL regional needs. The plan for FY2014 is to train new CPS technicians in the small and high risk communities and help maintain existing technicians who live in these communities. Reaching small/underserved communities is a major goal for the program. Gaining champions in these communities takes a commitment from police Chiefs, fire Chiefs, hospital CEO's and other leaders in the community. These communities have lean resources for such trainings, and therefore, gaining inroads into these communities has proved difficult. The current economic down turn will make the 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.

There will be 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 Alabama CPS program is building a network of trained CPS professionals and inspection stations in as many communities around the state as possible. The CPS state-wide website [www.cpsalabama.org](http://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 a recertification curriculum that will be applied in FY2014 to help technicians maintain their certification and to perform classes to be offered in FY2014. Recertification requires that the technician acquire at least 6 Child Passenger Safety Continuing Education Units (CEUs), the Alabama CPS program developed recertification curriculum provides all 6 CPS CEU's. Alabama has several options for technicians to acquire the 6 CEUs, but the primary one is the CPS recertification curriculum. The recertification class has been structured to offer all 6 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 Child Passenger Safety 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 other parents in the community.

As previously stated, the entire recertification process requires that existing technicians earn 6 CEUs to recertify in addition to the 5 specific car seat installations (witnessed and signed off by an instructor or by an instructor authorized proxy), and they must attend a 2 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 FY2014, events are being planned to assist these technicians to attend a two hour community event and obtain sign off for all required car seat installations. No currently certified technicians need to lose their certifications, since there are many opportunities for those technicians who are unable to attend a recertification class. They may satis-



fy CEU requirements by reading CPS articles, taking on-line quizzes or participating in teleconferences, with links that are all posted on [www.cpsalabama.org](http://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 retrain child passenger technicians, law enforcement officials, fire, and emergency rescue personnel and provide them with the education techniques to teach parents and caregivers the proper installation of child safety seats.

The statewide website ([www.cpsalabama.org](http://www.cpsalabama.org)) will continue to be upgraded. It has been recently 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 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 means for technicians to report upcoming events or to submit a report on a completed event. While this web site has served well, it clearly will need maintenance and upgrading over FY2014.

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 18 child safety seat inspection sites distributed around the state. 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 state's parents and caregivers to receive this valuable education. During FY2014 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 all inspection stations and each inspection station is maintaining the standards set by the national CPS curriculum.

In FY2012, the CPS public information program reached 62 percent of the State's total population. The goal for FY2014 will be to maintain this level and hopefully increase the level to 65 percent of the population of parents and caregivers. The CTSP/LELs will help maintain 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 recertification classes taught are available upon request. The statewide website ([www.cpsalabama.org](http://www.cpsalabama.org)) also provides pages containing information about hosting a CPS classes. The website also includes 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.

## **Increase Number of Certified Child Passenger Technicians**

During the past year, 15 certification classes were taught and 7 recertification classes were taught. The recertification rate for Alabama for this year was 52%, which was comparable to the national average of 54%. Alabama's high recertification rate can be attributed to the recertification classes and to an increased awareness of Child Passenger Safety across the state. The increased awareness has resulted in better retention of technicians.

131 - passed the course and can assist the existing permanent inspection stations. Additionally, 39 people got community education through CPS outreach trainings. A report for the year shows 7,148 car seats were checked during the quarter with all inspection stations reporting.

The plan for FY2014 includes maintaining the number of certification classes, and the number of recertification classes to 15 or more, while maintaining the high recertification rate. There will be at least 15 three day training opportunities for up to 10 community individuals in each class. These 15 training classes will be taught by the state-wide CPS coordinator and two additional instructors, usually the CTSP/LEL instructor in that region. 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 Alabama CPS program is building a structure of having a trained CPS professional within 50 miles of every community in the state.

To keep the current CPS professionals "sharp" with their skills and help them maintain their certification, 15 update/recertification classes are scheduled in FY2014. These classes will highlight the changes in the CPS field since the technician/instructor originally took the course and make them the local "expert" for those communities they serve. Once they complete the class, perform 5 specific car seat installations (witnessed and signed off by a local instructor), and attend a 2 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.

A statewide website was formed in 2005 and has been constantly updated so the public and local technicians can easily see who they can contact to get help within their community. The website has a map of Alabama and the CTSP/LEL contacts for each county. If a community has an on-going child safety seat inspection station/clinic then the hours of operation, location and contact information will be listed as well.

To meet this goal for FY2014, it is anticipated that three-day classes will be held in:

- Birmingham, Alabama;
- Florence, Alabama;
- Ft. Rucker, Alabama;
- Hartford, Alabama;
- Luverne, Alabama;
- Headland, Alabama;
- Gadsden, Alabama;
- Dothan, Alabama;

- Huntsville, Alabama;
- Eufaula, Alabama;
- Montgomery, Alabama;
- Selma, Alabama at the Alabama State Trooper Academy;
- Geneva, Alabama; and
- Tuscaloosa, Alabama.

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-served 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](http://www.cpsalabama.org). Many classes are being projected for all over the state and many of the smaller communities are now willing to participate. The smaller (higher risk, underserved) communities have been a goal of the CPS program since its inception.

A special emphasis will be placed on keeping currently certified technicians. To meet this need, recertification classes will be offered throughout the state. This recertification class enables the technicians the opportunity to acquire all six CPS Continuing Education Units (CEUs) required for recertification. The technician is also required to attend a two hour (minimum) checkup event and install five car seat scenarios with an instructor present to complete all the requirements for recertification. The calendar on [www.cpsalabama.org](http://www.cpsalabama.org) is constantly updated and all the classes (both certification & recertification) are shown. Each CTSP/LEL Coordinator will be encouraged to hold both a CPS certification class and a CPS recertification class in their region.

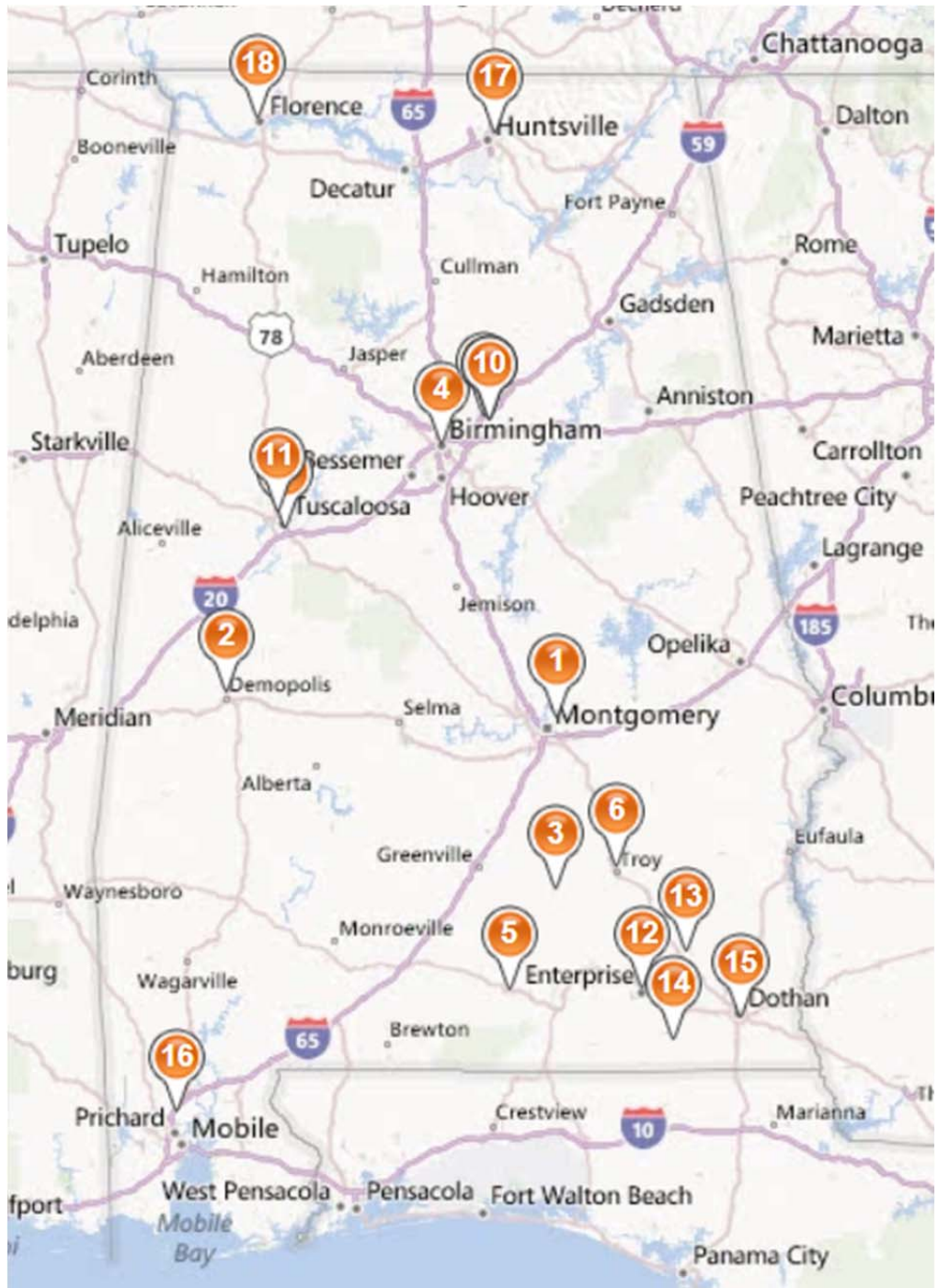
In FY2014, fifteen recertification classes will be held to support the inspection stations in the region. The CPS Coordinator will manage the development of a recertification curriculum for use in Alabama, and it is already approved for CPS CEUs with SAFE Kids worldwide, which makes recertification much easier for technicians. For FY2012, the standardized CPS curriculum was revised and taught over three days instead of the previous four days. The FY2013 classes have been taught over three straight days, and this is expected to be the norm over the next few years.

### **Additional Inspection Stations**

In FY2014 the CTSP/LEL regional offices will increase the number of inspection stations from their current 18 to 20 or more, adding to the four that were added in FY2012 and listed on the NHTSA website. The goal is to have an inspection station within 50 miles of parents anywhere in the state. 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 the 18 inspection stations, with specific responsible agencies given in the key beneath the display. Another summary table indicates the proportion of the state that is covered.



**Display 3. Location of CPS Inspections Stations**

The following is the key to Display 3

1. SAFE Kids Montgomery Area
2. Demopolis Police Department
3. Crenshaw County Sheriff's Office
4. Children's Hospital
5. Andalusia Police Department
6. Troy Police Department
7. Tuscaloosa Police Department

8. Trussville Fire and Rescue Station 1
9. Trussville Fire and Rescue Station 2
10. Trussville Fire and Rescue Station 3
11. Child Passenger Inspection Center
12. Enterprise Police Department
13. Ozark Police Department
14. Hartford Police Department
15. Southeast Alabama Medical
16. Saraland Police Dept.
17. Huntsville Hospital
18. Eliza Coffee Memorial Hospital

**Table 4. Proportion of Alabama’s Population Covered by Inspection Stations**

<b>Station Numbers</b>	<b>Population Served</b>	<b>Percentage of AL Population</b>
1	321,790	7%
2	25,670	0.5%
3	13,845	0.3%
4, 8, 9, 10	936,752	20%
5	20,551	0.4%
6	49,804	1%
7, 11	224,400	5%
12, 13, 14	76,936	1.6%
15	119,207	2.5%
16	596,420	12%
17	432,195	9%
18	146,587	3%
<b>TOTAL</b>	<b>2,990,351</b>	<b>62.6%</b>

Alabama’s total population in the 2010 census was 4,779,736.

## **Increased Communication and Awareness**

A major goal of the CPS program for FY2014 will be to increase communication and awareness on the issue of CPS in each of the nine 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](http://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 FY2014. For example, the web site now 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 manufacturer's view inflatable seatbelts 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 FY2014.

## **Data Driven Enforcement Program for Child Restraints**

This is an integral part of the data driven enforcement efforts as indicated in the Enforcement Program described above, and the details of that effort will not be repeated here.

## **Data and Program Evaluation**

This section is subdivided according to the follow categories:

- Observational survey of occupant protection and child restraint use
- Data driven enforcement citation analysis
- Continued problem identification and evaluation efforts

### **Observational Survey of Occupant Protection and Child Restraint Use**

Pre and post surveys for seat belt programs will be conducted by the University of Alabama Center for Advanced Public Safety (UA-CAPS). 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.

The National Highway Traffic Safety Administration (NHTSA) recently 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, April 1, 2011, 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. This plan is fully compliant with the Uniform Criteria and will be used for the implementation of Alabama's 2014 seat belt survey.

The University of Alabama Center for Advanced Public Safety (UA-CAPS) will conduct the annual survey of vehicle belt usage and child restraint usage throughout Alabama working together with faculty within the University Transportation Center for Alabama (UTCA) and faculty within the Department of Information Systems, Statistics, and Management Science in the Culverhouse College of Commerce and Business Administration at the University of Alabama.

### **Data Driven Enforcement Citation Analysis**

The State has an advanced capability to analyze and evaluate its enforcement efforts by the analysis of data obtained from its recently implemented electronic citation system (eCite). The following subsections will illustrate this capability with the following examples:

- Analysis by target areas: rural/urban within regions;
- Analysis by target groups: 16-25 year old drivers;
- Analysis by citation coverage of the state.

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 tables in the next section are based on citations in the eCite database for the 2010-2012 time period and the 2010 census data.

#### **Rural-Urban Analysis**

According to the seat belt survey performed for the State in 2011, the usage rate is lower in the rural areas than in the urban areas. A comparison of the rural and urban counties surveyed showed that es-

estimate of the rural rate to be 85.9%, while the urban rate was 89.2%. We can also see from the study reported in Attachment B that the number of crashes involving drivers who use no restraints is greatly over-represented in rural areas. So these two facts prove that rural areas need to be targeted.

Table 5 presents a comparison of rural versus urban citations issued over the state by regions in the CY2010-2012 time frame. The total for the region is given in the “All” column, with the regional percentage given in the next column. This is followed by two pairs of comparable columns, the first pair for the citations issued in rural areas and the second for citations issued in urban areas of the region.

**Table 5. Citation Analysis by Urban/Rural**

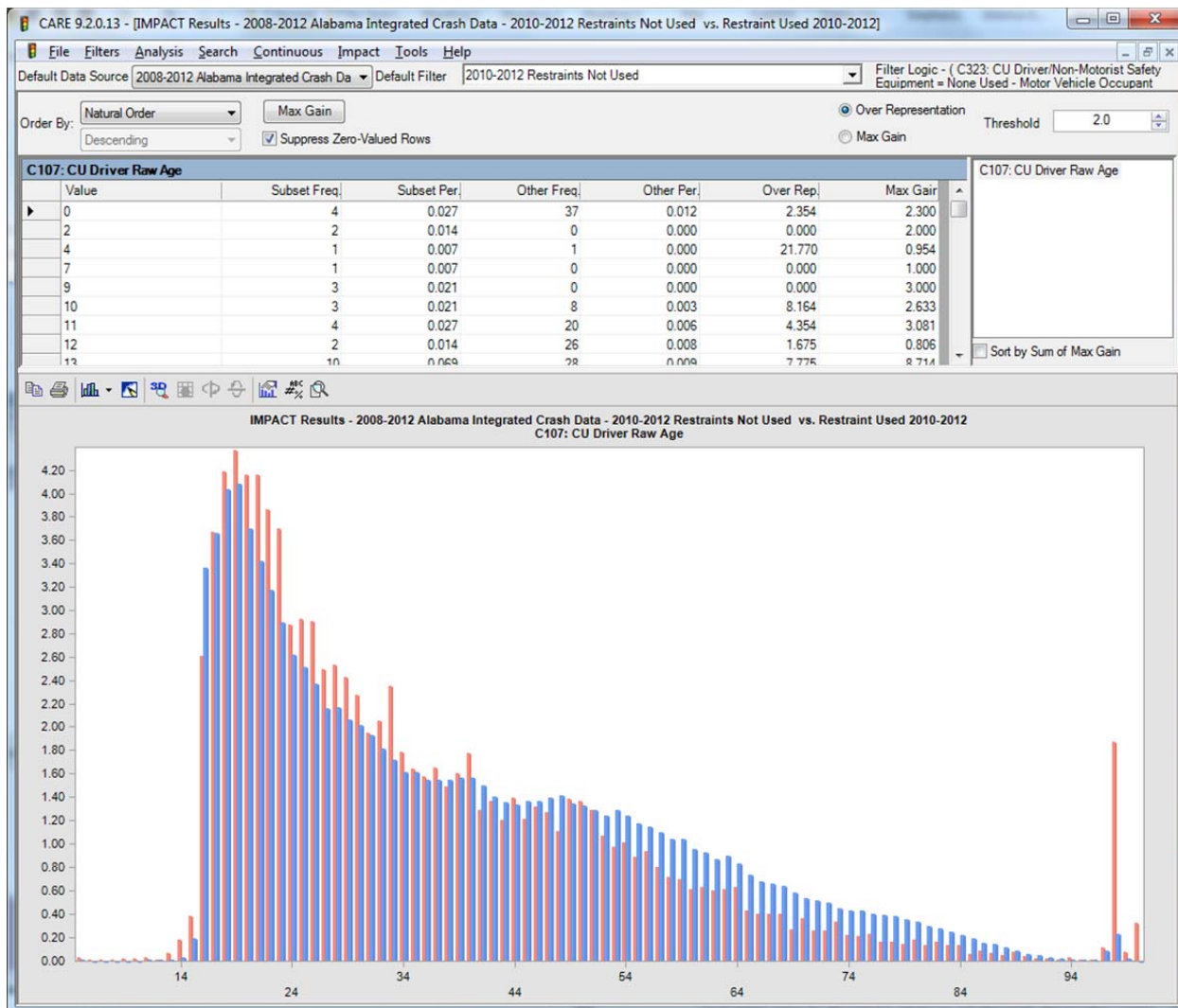
<b>Region</b>	<b>All</b>	<b>Regional</b>	<b>Rural</b>	<b>Regional</b>	<b>Urban</b>	<b>Regional</b>
Birmingham	41481	11.9%	24760	10.3%	16721	15.5%
North East	42008	12.1%	31511	13.1%	10497	9.7%
North	57838	16.6%	46900	19.6%	10938	10.1%
Mobile	48489	13.9%	30720	12.8%	17769	16.5%
East	31594	9.1%	20814	8.7%	10780	10.0%
Central	42298	12.2%	21803	9.1%	20495	19.0%
South East	39545	11.4%	26458	11.0%	13087	12.1%
South West	16693	4.8%	12390	5.2%	4303	4.0%
West	27731	8.0%	24338	10.2%	3393	3.1%
<b>TOTAL</b>	<b>347677</b>		<b>239694</b>		<b>107983</b>	

The proportion of rural tickets issued is  $239,694/347,677 = 68.9\%$ . The population of Alabama is 28.5% rural and 71.5% urban, according to the 2010 census data. The statistical significance for the ratio of 68.9% of the seat belt citations to 28.5% rural population is enormous, clearly demonstrating a concentration in the rural areas with a goal of improving seat belt usage among rural drivers in order to decrease fatalities and the overall severity of crashes. This clearly demonstrates that the State’s plan for the past two years has focused on rural areas.



## 16-25 Year Old Driver Analysis

The following chart illustrates the high numbers of crashes involving causal drivers in the 16-25 year age group.



Analysis of individual driver ages indicates that crashes involving no restraints are over represented in the years above the teen-drivers (age range 20-35). While it appears that teen-aged drivers are more likely to use safety equipment (perhaps due to the emphasis on it place during training), there is still a very large proportion that are unrestrained, and this problem is multiplied by their over-representation in crashes in general (see how they are at least twice the average of the other ages).

An analysis of fatalities that compare 21-25 year old males against their older counterparts (both male and females) indicated that the average number of fatalities incurred over the 2008-2012 period was **83.2** for males ages 21-25. This was compared to the older ages (in this case 26-70 so as not to bias the results with the drop off in population after age 70). The average fatality per year for the 26-70 year old group was **50.9**. This difference was found to be significant at the highest possible level.

The difference in the number of fatalities within these two groups on a per year basis was **83.2-50.9 = 32.3 fatalities**. If the restraint use by this target group of 21-25 year old males could be increased to that of the general population, the fatality number would be significantly reduced. This was the goal in targeting this age group.

### Restraint Citation Coverage Analysis

The restraint citation coverage analysis was performed by determining the populations of those cities in which no citations were issued in the 2009-2012 citation data. The populations for these cities were determined in order to obtain the total coverage. There were 61 very small cities that did not have a population listing. Many of these are without police departments, whose enforcement activities would generally be covered by the Alabama Department of Public Safety or the county sheriff's department. To obtain a conservative estimate of coverage, we assumed that none of these had citations issued by DPS or the county sheriff. Further, a liberal estimate of their population was obtained from the average population of those who did not report, since they would generally be of the same or lower population size. The total came out to a population of 185,522 that were not covered out of a total population of 4,779,736 (2010 population), which **gives a total coverage of over 96% for the State of Alabama.**

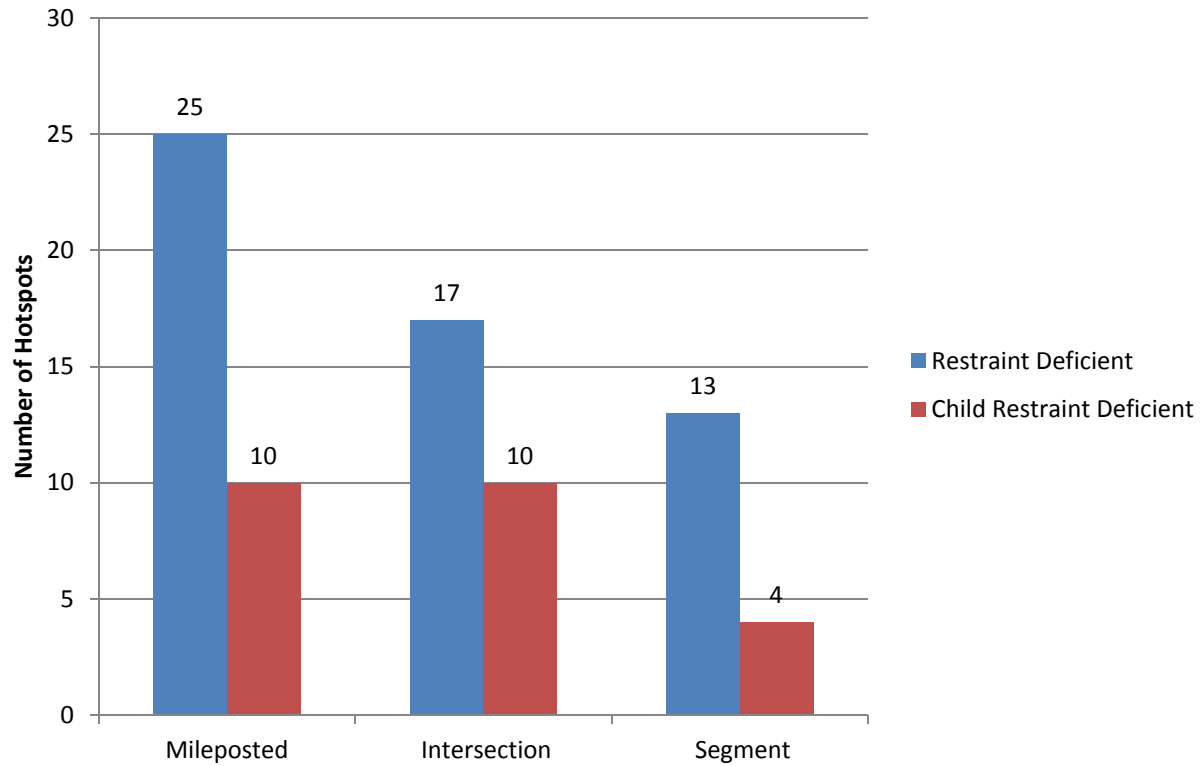
### Continued Problem Identification and Evaluation Efforts

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 base and data driven decisions. In addition, several evaluation studies will be performed to determine program success and to improve the program in future years. More specifically, the following types of analyses will be performed:

- 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.

# **ATTACHMENT A – LOCATION HOTSPOT RESTRAINT PROBLEM IDENTIFICATION**

## Birmingham Region: Restraint Deficient and Child Restraint Deficient Hotspots



## Top 25 Mileposted Locations (10 Miles in Length) in the Birmingham Region with 20 or More Re-straint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Jefferson	Hoover	I-65	249.4	259.4	64	2	35	27	0.03	12.66	2268.62	124308	Hoover Police Department
2	Walker	Jasper	S-5	166	176	35	1	13	21	0.11	7.71	312.09	17101	Jasper Police Department
3	Jefferson	Hoover	S-3	263.2	273.2	35	0	16	19	0.05	8.29	747.39	40953	Hoover Police Department
4	Jefferson	Birmingham	I-59	117.4	127.4	34	3	16	15	0.02	14.71	2174.32	119141	Birmingham Police Department
5	Shelby	Pelham	I-65	239.3	249.3	32	1	17	14	0.02	12.19	1598.17	87571	Pelham Police Department
6	Shelby	Rural Shelby	S-38	0.9	10.9	32	1	9	22	0.03	7.5	1260.73	69081	Alabama DPS - Birmingham Post
7	Saint Clair	Moody	S-25	166.3	176.3	31	3	13	15	0.13	13.55	233.24	12780	Leeds Police Department
8	Jefferson	Birmingham	I-65	260.1	270.1	31	1	15	15	0.02	15.16	1354.62	74226	Alabama DPS - Birmingham Post
9	Jefferson	Rural Jefferson	I-59	107.3	117.3	30	2	18	10	0.03	17	894.78	49029	Alabama DPS - Birmingham Post
10	Jefferson	Rural Jefferson	S-75	0.2	10.2	29	0	16	13	0.07	12.76	427.96	23450	Alabama DPS - Birmingham Post
11	Jefferson	Hoover	I-459	5.2	15.2	27	4	11	12	0.02	17.04	1253.45	68682	Hoover Police Department
12	Shelby	Rural Shelby	I-65	229.1	239.1	25	1	15	9	0.03	16	985.04	53975	Alabama DPS- Birmingham Post
13	Jefferson	Rural Jefferson	I-459	25.9	35.9	24	2	13	9	0.02	18.75	1181.56	64743	Alabama DPS- Birmingham Post
14	Walker	Rural Walker	S-5	156	166	23	6	13	4	0.07	27.39	342.48	18766	Alabama DPS- Birmingham Post
15	Chilton	Rural Chilton	I-65	196.5	206.5	23	3	16	4	0.04	21.74	606.37	33226	Alabama DPS- Montgomery Post
16	Jefferson	Rural Jefferson	I-459	15.9	25.9	23	0	10	13	0.01	10.87	1555.58	85237	Alabama DPS- Birmingham Post

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
17	Jefferson	Rural Jefferson	I-20	130	140	22	2	12	8	0.02	17.73	1103.56	60469	Alabama DPS- Birmingham Post
18	Shelby	Pelham	S-3	253.1	263.1	22	0	10	12	0.04	9.09	607.85	33307	Pelham Police Department
19	Jefferson	Rural Jefferson	I-65	275	285	21	2	11	8	0.02	14.29	889.56	48743	Alabama DPS- Birmingham Post
20	Jefferson	Hoover	S-150	1.7	11.7	21	2	9	10	0.06	14.29	360.84	19772	Hoover Police Department
21	Saint Clair	Rural St. Clair	I-20	140	150	21	2	8	11	0.02	14.29	1056.86	57910	Alabama DPS- Birmingham Post
22	Chilton	Clanton	S-3	217.2	227.2	21	0	12	9	0.11	10.48	193.91	10625	Clanton Police Department
23	Chilton	Rural Chilton	I-65	213.2	223.2	20	5	10	5	0.03	23.5	691.44	37887	Alabama DPS- Montgomery Post
24	Jefferson	Bessemer	S-5	123.2	133.2	20	0	11	9	0.05	12.5	386.22	21163	Bessemer Police Department
25	Saint Clair	Rural St. Clair	I-20	150	160	20	1	7	12	0.02	11.5	891.33	48840	Alabama DPS- Birmingham Post

## Top 17 Intersections in the Birmingham Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Jefferson	Hoover	10	0	4	6	9	0	5	I-459	292	0	INTERSTATE 459 at SR-3 US-31 INTERCHANGE	Hoover Police Department
2	Jefferson	Vestavia Hills	9	0	2	7	3.33	0	3	I-65	91	0	NO DESCRIPTION AVAILABLE	Vestavia Hills Police Department
3	Jefferson	Hoover	8	0	5	3	15	0	6	I-65	15192	0	INTERSTATE 459 at I-65 INTERCHANGE	Hoover Police Department
4	Walker	Rural Walker	7	2	4	1	28.57	2	9	S-5	7794	0	NO DESCRIPTION AVAILABLE	Alabama DPS- Birmingham Post
5	Jefferson	Rural Jefferson	7	0	5	2	17.14	0	9	I-20	15125	11937	NO DESCRIPTION AVAILABLE	Alabama DPS- Birmingham Post
6	Jefferson	Hoover	7	0	2	5	4.29	0	1	I-65	781	157	INTERSTATE 65 at SR-3 US-31 INTERCHANGE	Hoover Police Department
7	Shelby	Hoover	6	0	4	2	13.33	0	4	1250	8230	0	INTERSTATE 65 at VALLEYDALE RD	Hoover Police Department
8	Jefferson	Hoover	6	0	2	4	6.67	0	4	S-150	155	0	MONTGOMERY HWY US-31 at RIVERCHASE RD	Hoover Police Department
9	Shelby	Pelham	5	0	3	2	10	0	6	S-119	8259	0	NO DESCRIPTION AVAILABLE	Pelham Police Department
10	Shelby	Alabaster	5	0	1	4	2	0	3	S-3	175	0	INTERSTATE 65 at US-31 SR-3 INTERCHANGE	Alabaster Police Department
11	Jefferson	Brighton	5	0	0	5	0	0	0		5021	0	NO DESCRIPTION AVAILABLE	Brighton Police Department
12	Walker	Sumiton	4	0	3	1	20	0	5	S-5	8672	0	NO DESCRIPTION AVAILABLE	Sumiton Police Department
13	Walker	Rural Walker	4	0	2	2	15	0	4	S-69	7846	0	NO DESCRIPTION AVAILABLE	Alabama DPS- Birmingham Post
14	Jefferson	Bessemer	4	0	1	3	2.5	0	2	5309	1367	0	NO DESCRIPTION AVAILABLE	Bessemer Police Department
15	Jefferson	Hoover	4	0	0	4	0	0	0	7000	10640	10664	NO DESCRIPTION AVAILABLE	Hoover Police Department
16	Jefferson	Fultondale	4	0	0	4	0	0	0	5222	630	509	NO DESCRIPTION AVAILABLE	Fultondale Police Department
17	Walker	Jasper	4	0	0	4	0	0	0	S-5	114	0	NO DESCRIPTION AVAILABLE	Jasper Police Department

## Top 13 Segment in the Birmingham Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Jefferson	Rural Jefferson	12	0	9	3	19.17	0	25	I-459	14947	15125	No Description Available	Alabama DPS - Birmingham Post
2	Chilton	Rural Chilton	8	0	6	2	17.5	0	6	I-65	8067	8123	No Description Available	Alabama DPS - Montgomery Post
3	Jefferson	Bessemer	6	2	3	1	28.33	2	4	I-459	13917	680	No Description Available	Bessemer Police Department
4	Jefferson	Rural Jefferson	6	0	4	2	18.33	0	6	I-59	12509	386	No Description Available	Alabama DPS - Birmingham Post
5	Jefferson	Rural Jefferson	6	0	2	4	6.67	0	5	I-459	14396	15192	No Description Available	Alabama DPS - Birmingham Post
6	Saint Clair	Rural St. Clair	6	0	0	6	0	0	0	I-20	7775	7536	No Description Available	Alabama DPS - Birmingham Post
7	Saint Clair	Rural St. Clair	5	0	2	3	10	0	3	I-20	7780	7819	No Description Available	Alabama DPS - Birmingham Post
8	Chilton	Rural Chilton	4	1	3	0	30	1	4	I-65	667	7373	No Description Available	Alabama DPS - Montgomery Post
9	Shelby	Hoover	4	0	4	0	27.5	0	5	I-65	8230	15197	No Description Available	Hoover Police Department
10	Saint Clair	Rural St. Clair	4	1	2	1	20	1	4	I-59	7154	7287	No Description Available	Alabama DPS - Birmingham Post
11	Jefferson	Birmingham	4	0	3	1	17.5	0	3	I-59	2718	3210	No Description Available	Birmingham Police Department
12	Jefferson	Hoover	4	0	3	1	15	1	6	S-3	8852	770	No Description Available	Hoover Police Department
13	Shelby	Pelham	4	0	2	2	7.5	0	2	I-65	71	366	No Description Available	Pelham Police Department



### Top 10 Mileposted Locations (10 miles in Length) in the Birmingham Region with 4 or More Child Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Jefferson	Vestavia Hills	I-65	246.5	256.5	14	0	4	10	2.86	0.01	2127.46	116573	Vestavia Hills Police Department
2	Saint Clair	Moody	S-25	170.3	180.3	11	0	3	8	4.55	0.04	271.6	14882	Moody Police Department
3	Shelby	Pelham	I-65	236	246	8	0	0	8	0	0.01	1338.22	73327	Pelham Police Department
4	Jefferson	Rural Jefferson	I-59	112.7	122.7	6	1	1	4	13.33	0	1353.49	74164	Alabama DPS – Birmingham Post
5	Shelby	Alabaster	S-3	250	260	6	0	2	4	5	0.01	512.99	28109	Alabaster Police Department
6	Jefferson	Rural Jefferson	S-75	2.8	12.8	5	0	3	2	16	0.02	310.12	16993	Alabama DPS - Birmingham Post
7	Jefferson	Rural Jefferson	I-459	16	26	5	0	3	2	14	0	1550.59	84964	Alabama DPS – Birmingham Post
8	Jefferson	Hoover	S-3	260.4	270.4	5	0	2	3	4	0.01	657.62	36034	Hoover Police Department
9	Jefferson	Rural Jefferson	S-79	8.7	18.7	4	1	2	1	27.5	0.01	270.1	14800	Alabama DPS - Birmingham Post
10	Saint Clair	Rural St. Clair	S-53	213	223	4	1	2	1	17.5	0.02	250.01	13699	Alabama DPS – Birmingham Post

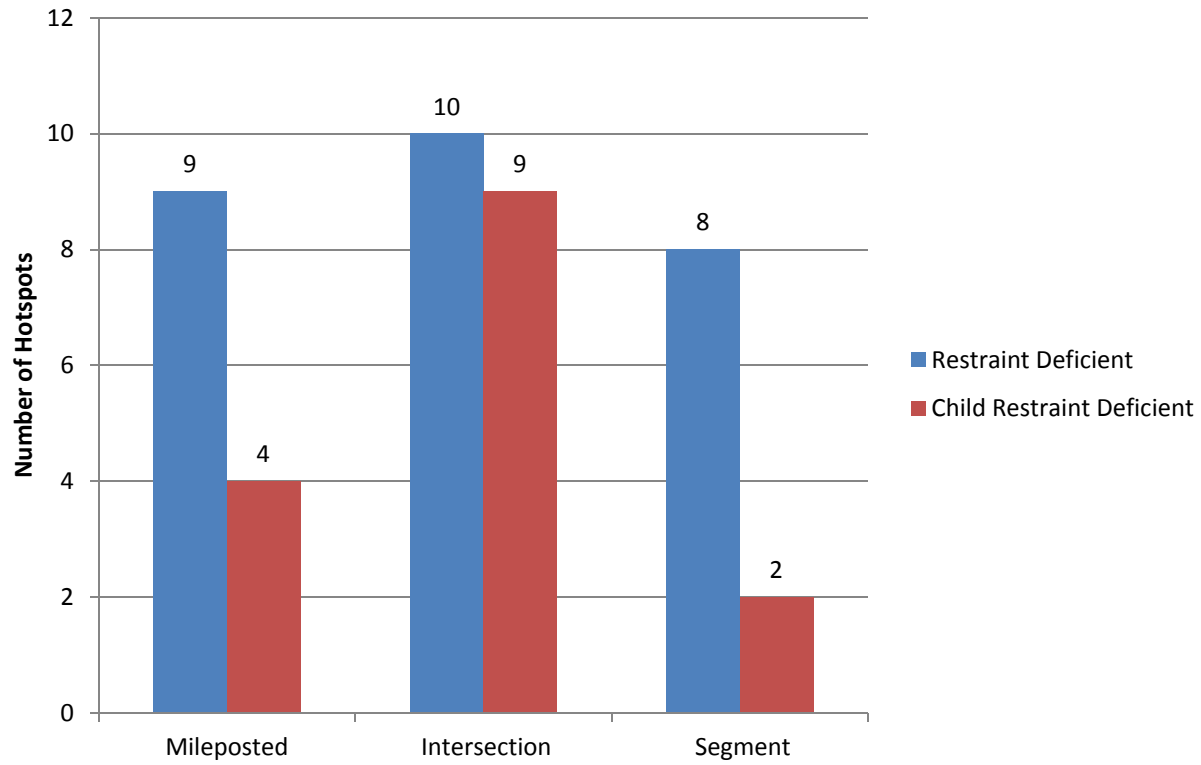
### Top 10 Intersections in the Birmingham Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Jefferson	Vestavia Hills	3	0	1	2	3.33	0	2	I-65	91	0	NO DESCRIPTION AVAILABLE	Vestavia Hills Police Department
2	Jefferson	Vestavia Hills	3	0	0	3	0	0	0	S-3	97	91	NO DESCRIPTION AVAILABLE	Vestavia Hills Police Department
3	Shelby	Pelham	3	0	0	3	0	0	0	I-65	71	0	NO DESCRIPTION AVAILABLE	Pelham Police Department
4	Shelby	Montevallo	2	0	1	1	10	0	1	S-119	7474	0	NO DESCRIPTION AVAILABLE	Montevallo Police Department
5	Shelby	Pelham	2	0	1	1	5	0	2	S-3	707	54	NO DESCRIPTION AVAILABLE	Pelham Police Department
6	Shelby	Alabaster	2	0	1	1	5	0	1	5042	278	0	INDUSTRIAL RD CO RD 66 at 1ST ST N SR-3 US-31	Alabaster Police Department
7	Shelby	Pelham	2	0	1	1	5	0	5	5462	5560	5462	NO DESCRIPTION AVAILABLE	Pelham Police Department
8	Jefferson	Homewood	2	0	1	1	5	0	1	I-65	35025	0	NO DESCRIPTION AVAILABLE	Homewood Police Department
9	Shelby	Alabaster	2	0	1	1	0	0	0	S-3	175	165	INTERSTATE 65 at US-31 SR-3 INTERCHANGE	Alabaster Police Department
10	Shelby	Pelham	2	0	0	2	0	0	0	1300	164	0	NO DESCRIPTION AVAILABLE	Pelham Police Department

## Top 4 Segments in the Birmingham Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Jefferson	Rural Jefferson	3	0	2	1	16.67	0	4	I-459	14396	15192	Between ACTON RD at I-459 INTERCHANGE and NO DESCRIPTION AVAILABLE	Alabama DPS - Birmingham Post
2	Jefferson	Rural Jefferson	2	0	1	1	15	0	1	I-59	12487	12509	NO DESCRIPTION AVAILABLE	Alabama DPS- Birmingham Post
3	Shelby	Rural Shelby	2	0	1	1	5	0	1	I-65	8259	79	NO DESCRIPTION AVAILABLE	Alabama DPS - Birmingham Post
4	Saint Clair	Moody	2	0	1	1	5	0	1	S-25	7912	677	NO DESCRIPTION AVAILABLE	Moody Police Department

## Central Region: Restraint Deficient and Child Restraint Deficient Hotspots



## Top 9 Mileposted Locations (10 Miles in Length) in the Central Region with 20 or More Re-straint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Russell	Phenix City	S-1	113.3	123.3	26	2	15	9	0.06	13.18	439.81	24099	Phenix City Police Department
2	Lee	Opelika	I-85	51	61	23	3	7	13	0.03	12.61	718.92	39393	Opelika Police Department
3	Lee	Opelika	I-85	61	71	22	4	8	10	0.04	17.27	591.85	32430	Opelika Police Department
4	Montgomery	Rural Montgomery	I-65	166.6	176.6	22	0	14	8	0.02	13.18	1191.05	65263	Alabama DPS - Montgomery Post
5	Elmore	Prattville	S-14	152.8	162.8	21	2	13	6	0.06	18.57	362.76	19877	Prattville Police Department
6	Russell	Rural Russell	S-8	205	215	21	1	14	6	0.07	16.67	282.46	15477	Phenix City Police Department
7	Russell	Phenix City	S-1	103.1	113.1	20	3	13	4	0.06	25	339.54	18605	Phenix City Police Department
8	Macon	Rural Macon	I-85	19.5	29.5	20	3	8	9	0.03	16.5	636.03	34851	Alabama DPS- Opelika Post
9	Elmore	Rural Elmore	I-65	176.7	186.7	20	1	11	8	0.03	15.5	786.06	43072	Alabama DPS- Montgomery Post

## Top 10 Intersections in the Central Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Lee	Auburn	8	1	1	6	7.5	1	3	6078	834	704	SR 147 COLLEGE ST at SR 267 SHUG JORDAN PKWY	Auburn Police Department
2	Lee	Auburn	4	1	2	1	22.5	1	4	S-15	7971	0	NO DESCRIPTION AVAILABLE	Auburn Police Department
3	Montgomery	Rural Montgomery	4	0	3	1	15	0	3	I-65	7852	7851	INTERSTATE 65 at ALA HWY 143 INTERCHANGE	Alabama DPS – Montgomery Post
4	Elmore	Millbrook	4	0	2	2	10	0	2	S-14	8255	0	NO DESCRIPTION AVAILABLE	Millbrook Police Department
5	Lee	Auburn	4	0	2	2	5	0	1	1137	693	691	SR 267 SHUG JORDAN PKWY at WIRE RD	Auburn Police Department
6	Russell	Phenix City	4	0	1	3	5	0	1	5672	1455	0	CITY ST at CRAWFORD RD 5672	Phenix City Police Department
7	Lee	Auburn	4	0	1	3	2.5	0	1	5155	75	2010	SR 14 OPELIKA RD at UNIVERSITY DR	Auburn Police Department
8	Montgomery	Montgomery	4	0	1	3	2.5	0	1	I-85	3014	0	ANN ST at I-85 INTERCHANGE	Montgomery Police Department
9	Montgomery	Montgomery	4	0	1	3	2.5	0	1	5844	8192	0	NO DESCRIPTION AVAILABLE	Montgomery Police Department
10	Lee	Auburn	4	0	0	4	0	0	0	S-147	7327	0	I-85 at SR 147 COLLEGE ST	Auburn Police Department

### Top 8 Segments in the Central Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Lee	Opelika	9	2	4	3	22.22	2	7	I-85	1069	339	No Description Available	Opelika Police Department
2	Elmore	Rural Elmore	8	1	5	2	21.25	1	11	I-65	8131	8415	No Description Available	Alabama DPS - Montgomery Post
3	Montgomery	Rural Montgomery	6	1	2	3	16.67	1	9	S-6	7491	7222	No Description Available	Alabama DPS - Montgomery Post
4	Macon	Rural Macon	5	2	0	3	20	2	3	I-85	7245	7205	No Description Available	Alabama DPS - Opelika Post
5	Macon	Rural Macon	5	0	2	3	6	0	5	I-85	7218	7477	No Description Available	Alabama DPS - Opelika Post
6	Bullock	Rural Bullock	4	2	2	0	37.5	2	3	S-110	7450	7442	No Description Available	Alabama DPS - Dothan Post
7	Macon	Rural Macon	4	0	3	1	20	0	3	S-81	7422	7435	No Description Available	Alabama DPS - Opelika Post
8	Macon	Rural Macon	4	0	2	2	10	0	6	I-85	7477	7510	No Description Available	Alabama DPS - Opelika Post

### Top 4 Mileposted Locations (10 miles in Length) in the Central Region with 4 or More Child Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Russell	Phenix City	S-1	107.5	117.5	9	1	2	6	10	0.02	487.2	26696	Phenix City Police Department
2	Autauga	Prattville	S-14	151	161	9	0	2	7	2.22	0.03	352.35	19307	Prattville Police Department
3	Autauga	Rural Autauga	I-65	194	204	4	1	0	3	12.5	0.01	602.05	32989	Alabama DPS – Montgomery Post
4	Russell	Phenix City	S-8	209	219	4	0	2	2	10	0.01	502.95	27559	Phenix City Police Department

### Top 9 Intersections in the Central Region with 2 or More Child Restraint Deficient Crashes

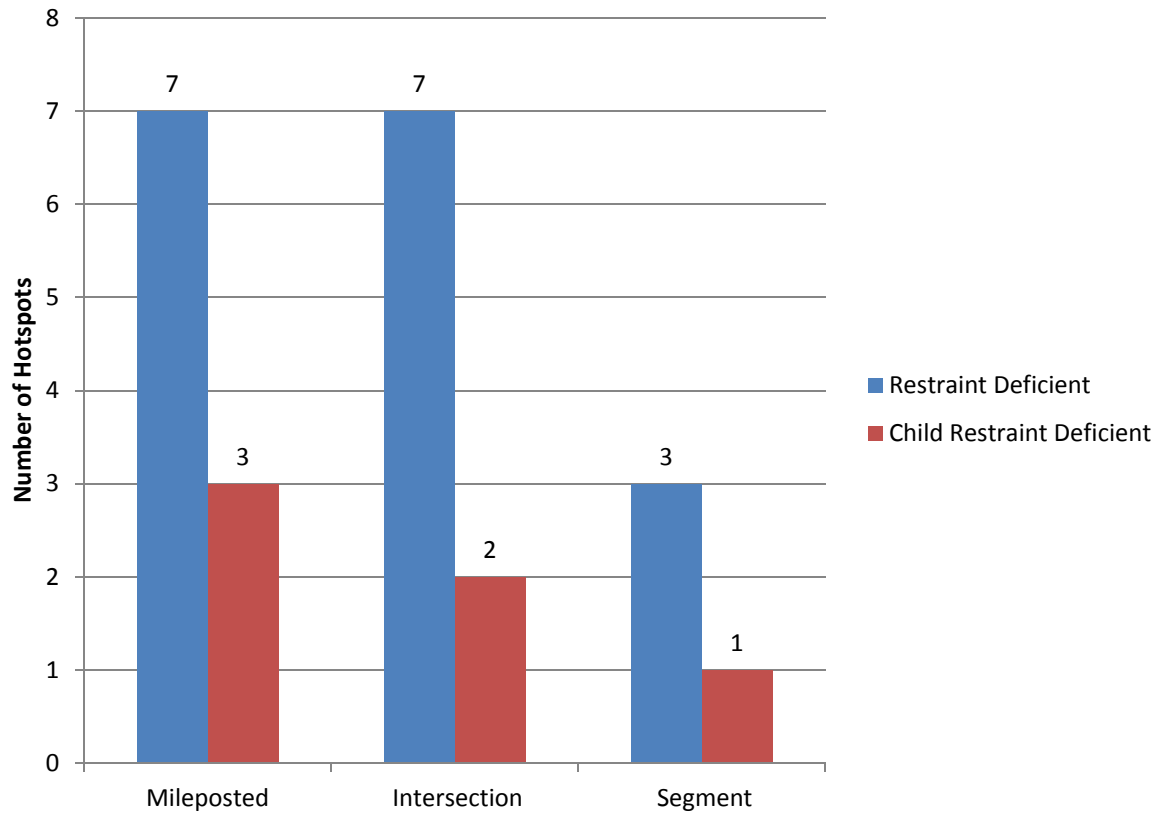
Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Lee	Auburn	2	0	2	0	15	0	4	S-147	10	0	DONAHUE DR at SR 267 COLLEGE ST W	Auburn Police Department
2	Montgomery	Montgomery	2	0	1	1	10	0	3	I-65	5008	8062	MALABAR RD at PEABODY RD W OF RIDERWOOD	Montgomery Police Department
3	Lee	Opelika	2	0	1	1	10	0	1	5580	531	0	ST RT14 AND 2ND AV at NORFOLK SOUTHERN RR	Opelika Police Department
4	Lee	Opelika	2	0	1	1	5	0	1	5562	1557	0	NO DESCRIPTION AVAILABLE	Opelika Police Department
5	Lee	Rural Lee	2	0	1	1	5	0	1	1240	7685	7695	NO DESCRIPTION AVAILABLE	Alabama DPS - Opelika Post
6	Elmore	Millbrook	2	0	0	2	0	0	0	S-14	8255	0	NO DESCRIPTION AVAILABLE	Millbrook Police Department
7	Russell	Phenix City	2	0	0	2	0	0	0	S-1	315	0	S 16TH AVE at US 280 & 431	Phenix City Police Department
8	Russell	Phenix City	2	0	0	2	0	0	0	5361	1054	0	38TH PL at STADIUM RD 5361	Phenix City Police Department
9	Autauga	Prattville	2	0	0	2	0	0	0	1138	890	1034	MAIN ST E at MCQUEEN SMITH RD	Prattville Police Department

### Top 2 Segments in the Central Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Macon	Rural Macon	2	0	2	0	15	0	2	I-85	7418	7477	NO DESCRIPTION AVAILABLE	Alabama DPS - Opelika Post
2	Montgomery	Rural Montgomery	2	0	0	2	0	0	0	S-9	7811	7918	Between WETUMPKA HWY SR-9 US-231 at OLD WETUMPKA HWY and CONSTANTINE DR at MERIWEATHER RD	Alabama DPS - Montgomery Post



### East Region: Restraint Deficient and Child Restraint Deficient Hotspots



## Top 7 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	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Calhoun	Anniston	S-1	229.8	239.8	34	1	14	19	0.07	11.47	508.08	27840	Anniston Police Department
2	Calhoun	Rural Talladega	I-20	179	189	28	1	11	16	0.04	12.86	687.09	37649	Alabama DPS - Jacksonville Post
3	Talladega	Lincoln	I-20	164	174	24	2	12	10	0.03	17.92	725.78	39769	Alabama DPS- Jacksonville Post
4	Calhoun	Rural Calhoun	I-20	189.9	199.9	22	2	10	10	0.03	17.27	637.55	34934	Alabama DPS- Jacksonville Post
5	Calhoun	Oxford	S-4	158.2	168.2	20	1	13	6	0.12	18.5	166.71	9135	Oxford Police Department
6	Calhoun	Rural Talladega	S-4	147.5	157.5	20	0	13	7	0.11	14	180.58	9895	Alabama DPS- Jacksonville Post
7	Chambers	Valley	S-15	205	214	20	1	9	10	0.07	12	275.87	16796	Valley Police Department

### Top 7 Intersections in the East Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Calhoun	Anniston	4	0	3	1	17.5	0	5	S-1	847	849	17TH ST at QUINTARD AV W	Anniston Police Department
2	Calhoun	Oxford	4	0	3	1	15	0	5	S-21	189	0	NO DESCRIPTION AVAILABLE	Oxford Police Department
3	Calhoun	Rural Calhoun	4	0	2	2	15	0	3	S-1	8014	0	NO DESCRIPTION AVAILABLE	Alabama DPS-Jacksonville Post
4	Talladega	Lincoln	4	0	3	1	12.5	0	4	S-4	187	0	NO DESCRIPTION AVAILABLE	Lincoln Police Department
5	Calhoun	Oxford	4	0	2	2	10	0	4	S-4	490	0	NO DESCRIPTION AVAILABLE	Oxford Police Department
6	Tallapoosa	Alexander City	4	0	2	2	7.5	0	5	S-38	925	1175	NO DESCRIPTION AVAILABLE	Alexander City Police Department
7	Calhoun	Anniston	4	0	0	4	0	0	0	S-1	1477	1478	I ST at S001 & US431	Anniston Police Department

### Top 3 Segments in East Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Talladega	Lincoln	5	1	2	2	22	1	10	I-20	25	55	No Description Available	Alabama DPS - Jacksonville Post
2	Cleburne	Rural Cleburne	5	0	2	3	12	0	2	I-20	7325	7313	No Description Available	Alabama DPS - Jacksonville Post
3	Talladega	Rural Talladega	4	0	4	0	27.5	0	5	1045	8040	7191	No Description Available	Alabama DPS - Jacksonville Post

### Top 3 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	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Calhoun	Oxford	S-4	154.5	164.5	5	0	2	3	0.02	6	262.51	14384	Oxford Police Department
2	Calhoun	Oxford	S-21	247	257	4	0	1	3	0.01	7.5	331.91	18187	Alabama DPS - Jacksonville Post
3	Talladega	Talladega	S-77	58.8	68.8	4	0	1	3	0.03	7.5	150.42	8242	Talladega Police Department

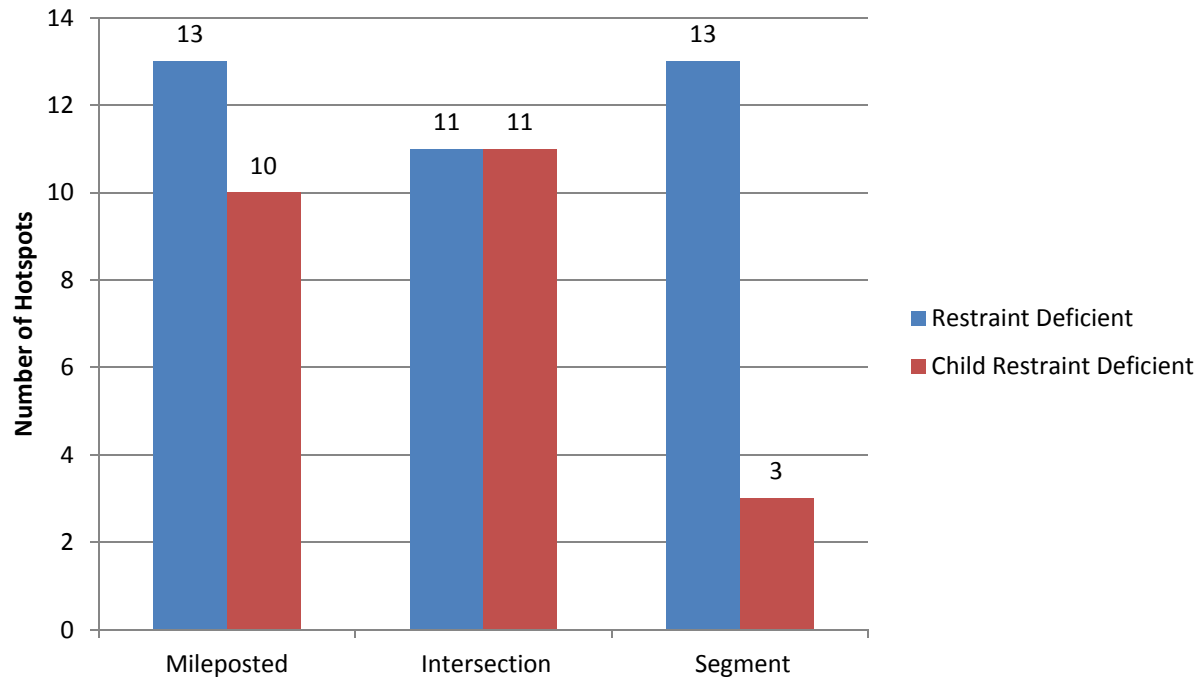
### Top 2 Intersections in East Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Calhoun	Anniston	2	0	2	0	25	0	10	S-1	848	0	17TH ST at QUINTARD AV E	Anniston Police Department
2	Tallapoosa	Alexander City	2	0	1	1	10	0	0	S-22	924	860	NO DESCRIPTION AVAILABLE	Alexander City Police Department

### Top 1 Segment in the East Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Calhoun	Anniston	2	0	0	2	0	0	0	S-1	232	9614	Between ALA 1 & QUINTARD AV N at BLUE MOUNTAIN RD and ALA 1 & QUINTARD AV N at E A DARDEN	Anniston Police Department

## Mobile Region: Restraint Deficient and Child Restraint Deficient Hotspots



## Top 13 Mileposted Locations (10 Miles in Length) in the Mobile Region with 20 or More Re-straint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Mobile	Mobile	I-10	21.5	31.2	49	3	21	25	0.04	10.61	1251.6	68581	Mobile Police Department
2	Mobile	Rural Mobile	I-10	10	20	38	5	21	12	0.03	17.89	1241.86	68047	Alabama DPS – Mobile Post
3	Mobile	Mobile	I-65	0.1	10.1	37	4	18	15	0.03	16.49	1447.39	79309	Mobile Police Department
4	Baldwin	Gulf Shores	S-59	0.1	10.1	31	1	12	18	0.05	9.03	639.64	35049	Gulf Shores Police Department
5	Baldwin	Daphne	S-42	35	45	29	1	19	9	0.05	15.86	552.76	30288	Daphne Police Department
6	Mobile	Rural Mobile	S-42	11.9	21.9	28	1	17	10	0.06	16.43	496.24	27191	Alabama DPS - Mobile Post
7	Mobile	Rural Mobile	I-10	0	10	28	3	10	15	0.03	13.57	852.13	46692	Alabama DPS – Mobile Post
8	Mobile	Prichard	S-17	2.7	12.7	28	1	9	18	0.13	9.64	212.03	11618	Prichard Police Department
9	Mobile	Rural Mobile	S-42	1.9	11.9	27	1	11	15	0.1	10	270.37	14815	Alabama DPS – Mobile Post
10	Mobile	Rural Mobile	S-188	0.1	10.1	25	2	12	11	0.17	15.2	146.44	8024	Alabama DPS – Mobile Post
11	Mobile	Rural Mobile	S-217	0	10	22	3	12	7	0.15	20.45	143.54	7865	Alabama DPS – Mobile Post
12	Mobile	Rural Mobile	S-13	10.4	20.4	21	0	11	10	0.06	10.95	336.11	18417	Alabama DPS – Mobile Post
13	Escambia	Rural Escambia	S-21	1	11	20	4	5	11	0.15	16.5	136.11	7458	Alabama DPS – Evergreen Post

## Top 11 Intersection in the Mobile Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Mobile	Bayou La Batre	5	0	1	4	4	0	1	S-188	209	159	NO DESCRIPTION AVAILABLE	Bayou La Batre Police Department
2	Mobile	Rural Mobile	4	0	4	0	22.5	0	6	S-217	8811	0	LOTT RD at SPICE POND RD	Alabama DPS – Mobile Post
3	Mobile	Mobile	4	0	4	0	20	0	5	S-42	7529	0	FOREST HILL DR at MOFFAT RD SR-42 US-98	Mobile Police Department
4	Mobile	Rural Mobile	4	0	3	1	17.5	0	5	S-42	8860	3632	HICKORY LN CO 754 at NORTHWOOD DR W	Alabama DPS – Mobile Post
5	Mobile	Mobile	4	0	3	1	12.5	0	3	I-10	10560	0	INTERSTATE 10 at HIGGINS RD INTERCHANGE	Mobile Police Department
6	Mobile	Mobile	4	0	2	2	10	0	7	7779	6200	5934	NO DESCRIPTION AVAILABLE	Mobile Police Department
7	Mobile	Rural Mobile	4	0	2	2	10	0	4	1217	7474	0	PADGETT SWITCH RD CO 81 at TWO MILE RD	Alabama DPS – Mobile Post
8	Mobile	Mobile	4	0	1	3	7.5	0	2	I-65	1939	1907	AIRPORT BLVD at I-65	Mobile Police Department
9	Mobile	Mobile	4	0	1	3	5	0	1	S-16	4169	0	CONCEPTION ST at GOVERNMENT ST SR-16 US-90	Mobile Police Department
10	Mobile	Prichard	4	0	0	4	0	0	0	S-17	926	0	ST STEPHENS RD at HAND AVE	Prichard Police Department
11	Mobile	Mobile	4	0	0	4	0	0	0	I-10	7743	0	INTERSTATE 10 at US HWY 90 INTERCHANGE	Mobile Police Department

### Top 13 Segments in the Mobile Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Mobile	Rural Mobile	10	1	3	6	14	1	13	I-10	8230	8219	No Description Available	Alabama DPS - Mobile Post
2	Baldwin	Rural Baldwin	8	0	2	6	5	0	6	I-10	8703	8726	No Description Available	Alabama DPS - Mobile Post
3	Mobile	Rural Mobile	6	0	4	2	15	0	7	1637	9012	9200	No Description Available	Alabama DPS - Mobile Post
4	Mobile	Rural Mobile	5	2	3	0	36	2	6	I-10	8230	7917	No Description Available	Alabama DPS - Mobile Post
5	Baldwin	Rural Baldwin	5	1	2	2	20	3	4	I-10	8171	13590	No Description Available	Alabama DPS - Mobile Post
6	Baldwin	Rural Baldwin	5	0	1	4	4	0	1	I-10	8901	8841	No Description Available	Alabama DPS - Mobile Post
7	Mobile	Rural Mobile	5	0	1	4	2	0	3	I-10	8330	7917	No Description Available	Alabama DPS - Mobile Post
8	Mobile	Rural Mobile	4	1	2	1	22.5	1	3	I-10	8219	10966	No Description Available	Alabama DPS - Mobile Post
9	Mobile	Mobile	4	0	3	1	17.5	0	5	I-10	3746	3306	No Description Available	Mobile Police Department
10	Baldwin	Gulf Shores	4	1	1	2	15	1	2	S-59	305	7279	No Description Available	Gulf Shores Police Department
11	Mobile	Chickasaw	4	0	1	3	7.5	0	1	I-65	1	211	No Description Available	Chickasaw Police Department
12	Mobile	Mobile	4	0	1	3	2.5	0	3	I-10	8876	8870	No Description Available	Mobile Police Department
13	Baldwin	Rural Baldwin	4	0	1	3	2.5	0	1	I-10	8726	9020	No Description Available	Alabama DPS - Mobile Post



## Top 10 Mileposted Locations (10 Miles in Length) in the Mobile Region with 4 or More Child Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Baldwin	Gulf Shores	S-59	1	11	16	0	5	11	5	0.03	631.19	34586	Gulf Shores Police Department
2	Mobile	Mobile	I-65	2.9	12.9	11	0	6	5	8.18	0.01	1327.45	72737	Mobile Police Department
3	Mobile	Mobile	I-10	23.6	36.3	9	0	2	7	3.33	0.01	1096.35	60074	Mobile Police Department
4	Mobile	Rural Mobile	S-42	3.4	13.4	8	0	2	6	5	0.03	310.34	17005	Alabama DPS - Mobile Post
5	Mobile	Rural Mobile	I-10	2.9	12.9	6	1	2	3	16.67	0.01	913.03	50029	Alabama DPS - Mobile Post
6	Mobile	Saraland	S-13	2	12	6	0	1	5	3.33	0.02	288.13	15788	Saraland Police Department
7	Mobile	Rural Mobile	S-13	13	23	5	0	4	1	18	0.02	306.76	16809	Alabama DPS - Mobile Post
8	Mobile	Mobile	I-10	15.5	25.5	5	0	3	2	10	0	1452.15	79570	Mobile Police Department
9	Mobile	Prichard	S-17	1.8	11.8	5	0	1	4	4	0.02	215.33	11799	Prichard Police Department
10	Baldwin	Gulf Shores	S-182	5.6	15.6	4	0	1	3	5	0.01	281.98	15451	Gulf Shores Police Department

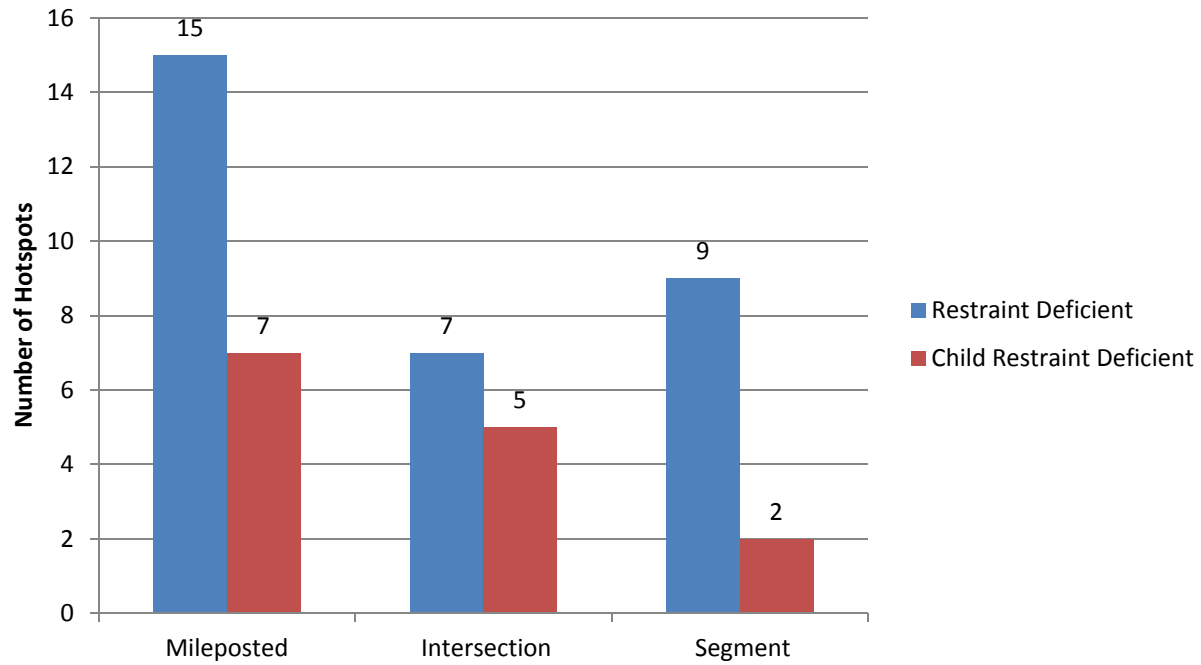
### Top 11 Intersections in the Mobile Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Mobile	Mobile	3	0	1	2	6.67	0	2	6731	1346	6735	AZALEA RD at PACE LN	Mobile Police Department
2	Mobile	Rural Mobile	2	0	2	0	20	0	10	S-42	8782	0	MCCRARY RD CO 604 at SR 42 US 98 MOFFAT RD	Alabama DPS – Mobile Post
3	Mobile	Mobile	2	0	2	0	20	0	8	7101	4588	0	CATHERINE ST at SPRING HILL AVE SR-42	Mobile Police Department
4	Mobile	Mobile	2	0	1	1	5	0	1	1359	1196	0	COTTAGE HILL RD at UNIVERSITY BLVD	Mobile Police Department
5	Mobile	Mobile	2	0	1	1	5	0	0	S-16	5002	0	EDWARDS ST at JONES LN	Mobile Police Department
6	Baldwin	Gulf Shores	2	0	0	2	0	0	0	S-180	154	158	No Description Available	Gulf Shores Police Department
7	Baldwin	Foley	2	0	0	2	0	0	0	S-59	155	299	No Description Available	Foley Police Department
8	Mobile	Mobile	2	0	0	2	0	0	0	1359	5751	7145	No Description Available	Mobile Police Department
9	Mobile	Rural Mobile	2	0	0	2	0	0	0	S-42	13048	0	MOFFAT RD US HWY 98 at TEMPLE RD	Mobile Police Department
10	Mobile	Mobile	2	0	0	2	0	0	0	I-65	1939	0	AIRPORT BLVD at I-65	Mobile Police Department
11	Mobile	Mobile	2	0	0	2	0	0	0	5985	1980	0	DAUPHIN ST at I-65 SER RD EAST SIDE	Mobile Police Department

### Top 3 Segments in the Mobile Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Mobile	Mobile	2	0	2	0	10	0	3	I-65	7088	1989	Between INTERSTATE 65 at OLD SHELL RD BRIDGE and DAUPHIN ST at I-65	Mobile Police Department
2	Baldwin	Gulf Shores	2	0	0	2	0	0	0	S-59	7279	305	No Description Available	Gulf Shores Police Department
3	Mobile	Rural Mobile	2	0	0	2	0	0	0	I-10	8330	7917	Between GRAND BAY-WILMER RD at I-10 INTERCHANGE and INTERSTATE 10 at RAMSEY RD BRIDGE	Alabama DPS – Mobile Post

## North Region: Restraint Deficient and Child Restraint Deficient Hotspots



## Top 15 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	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Limestone	Rural Limestone	S-2	77	87	33	4	18	11	0.1	17.27	343.98	18848	Alabama DPS - Decatur Post
2	Franklin	Russellville	S-13	286	296	26	3	17	6	0.13	21.92	201.94	11065	Russellville Police Department
3	Morgan	Decatur	S-67	32	42	24	1	12	11	0.05	12.5	495.32	27141	Priceville Police Department
4	Cullman	Rural Cullman	I-65	296.6	306.6	24	2	6	16	0.03	9.17	724.74	39712	Alabama DPS - Decatur Post
5	Morgan	Hartselle	S-3	345.5	355.5	23	1	14	8	0.06	12.61	392.79	21523	Hartselle Police Department
6	Cullman	Rural Cullman	S-69	240.2	250.2	23	0	7	16	0.11	5.22	216.72	11875	Alabama DPS - Decatur Post
7	Cullman	Rural Cullman	I-65	309.8	319.8	22	1	13	8	0.04	15.91	540.25	29603	Alabama DPS - Decatur Post
8	Morgan	Rural Morgan	S-53	294.6	304.6	21	1	13	7	0.08	17.62	273.13	14966	Alabama DPS - Decatur Post
9	Limestone	Rural Limestone	S-2	66.5	76.5	21	1	12	8	0.06	16.67	343.14	18802	Alabama DPS - Decatur Post
10	Cullman	Rural Cullman	I-65	286.5	296.5	21	2	7	12	0.03	11.9	725.07	39730	Alabama DPS - Decatur Post
11	Cullman	Cullman	S-3	316.2	326.2	21	0	11	10	0.08	10.95	259.02	14193	Cullman Police Department
12	Colbert	Muscle Shoals	S-2	19	29	20	1	13	6	0.05	17.5	417.67	22886	Muscle Shoals Police Department
13	Colbert	Rural Franklin	S-13	298.8	308.8	20	1	11	8	0.08	15	240.74	13191	Alabama DPS - Quad Cities Post
14	Morgan	Hartselle	S-36	15.1	25.1	20	0	14	6	0.14	15	147.15	8063	Hartselle Police Department
15	Morgan	Rural Morgan	I-65	332.1	342.1	20	1	9	10	0.03	13.5	597.27	32727	Alabama DPS - Decatur Post

### Top 7 Intersections in the North Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Lawrence	Rural Lawrence	11	1	7	3	19.09	1	12	S-24	8840	0	NO DESCRIPTION AVAILABLE	Alabama DPS - Decatur Post
2	Morgan	Rural Morgan	5	0	4	1	20	0	5	S-24	3012	0	NO DESCRIPTION AVAILABLE	Alabama DPS - Decatur Post
3	Morgan	Decatur	5	0	0	5	0	0	0	S-67	300	0	SR 3 US 31 at SR 67	Decatur Police Department
4	Franklin	Russellville	4	0	4	0	30	0	4	S-13	128	0	NO DESCRIPTION AVAILABLE	Russellville Police Department
5	Cullman	Cullman	4	0	2	2	10	0	5	S-157	1193	0	NO DESCRIPTION AVAILABLE	Cullman Police Department
6	Lauderdale	Florence	4	0	1	3	2.5	0	1	S-133	1453	0	COX CREEK PKWY at SR 157	Florence Police Department
7	Cullman	Cullman	4	0	0	4	0	0	0	S-157	1204	1442	NO DESCRIPTION AVAILABLE	Cullman Police Department

### Top 9 Segments in the North Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Cullman	Rural Cullman	14	1	4	9	7.86	1	7	I-65	7281	7541	No Description Available	Alabama DPS - Decatur Post
2	Morgan	Rural Morgan	5	0	5	0	20	0	8	I-65	19	7828	No Description Available	Alabama DPS - Decatur Post
3	Morgan	Rural Morgan	5	0	4	1	20	0	5	1089	7776	7778	No Description Available	Alabama DPS - Decatur Post
4	Limestone	Rural Limestone	4	2	2	0	40	2	4	S-2	7797	7806	No Description Available	Alabama DPS - Decatur Post
5	Colbert	Rural Colbert	4	1	2	1	25	1	2	1179	7207	8280	No Description Available	Alabama DPS – Quad Cities Post
6	Cullman	Rural Cullman	4	0	3	1	15	0	3	I-65	8809	8418	No Description Available	Alabama DPS - Decatur Post
7	Morgan	Rural Morgan	4	0	1	3	7.5	0	1	I-65	7148	7481	No Description Available	Alabama DPS - Decatur Post
8	Franklin	Rural Franklin	4	0	1	3	5	0	2	S-13	7807	7936	No Description Available	Alabama DPS - Quad Cities Post
9	Limestone	Rural Limestone	4	0	1	3	5	0	1	I-65	7151	7172	No Description Available	Alabama DPS - Decatur Post

## Top 7 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	PDO Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Colbert	Muscle Shoals	S-2	28.4	38.4	7	0	1	6	1.43	0.01	472.75	25959	Muscle Shoals Police Department
2	Morgan	Decatur	S-67	33.8	43.8	6	0	3	3	8.33	0.01	527.26	28891	Decatur Police Department
3	Morgan	Hartselle	S-3	345	355	6	0	2	4	8.33	0.02	383.96	21039	Hartselle Police Department
4	Lawrence	Rural Lawrence	S-24	57	67	4	1	2	1	27.5	0.01	267.95	14682	Alabama DPS - Decatur Post
5	Cullman	Cullman	S-3	324.9	334.9	4	0	1	3	7.5	0.02	231.26	12672	Cullman Police Department
6	Limestone	Rural Limestone	S-2	68.5	78.5	4	0	1	3	7.5	0.01	367.79	20153	Alabama DPS - Decatur Post
7	Limestone	Rural Limestone	S-2	80.6	90.6	4	0	0	4	0	0.01	461.91	25310	Alabama DPS - Decatur Post

## Top 5 Intersections in the North Region with 2 or More Child Restraint Deficient Crashes

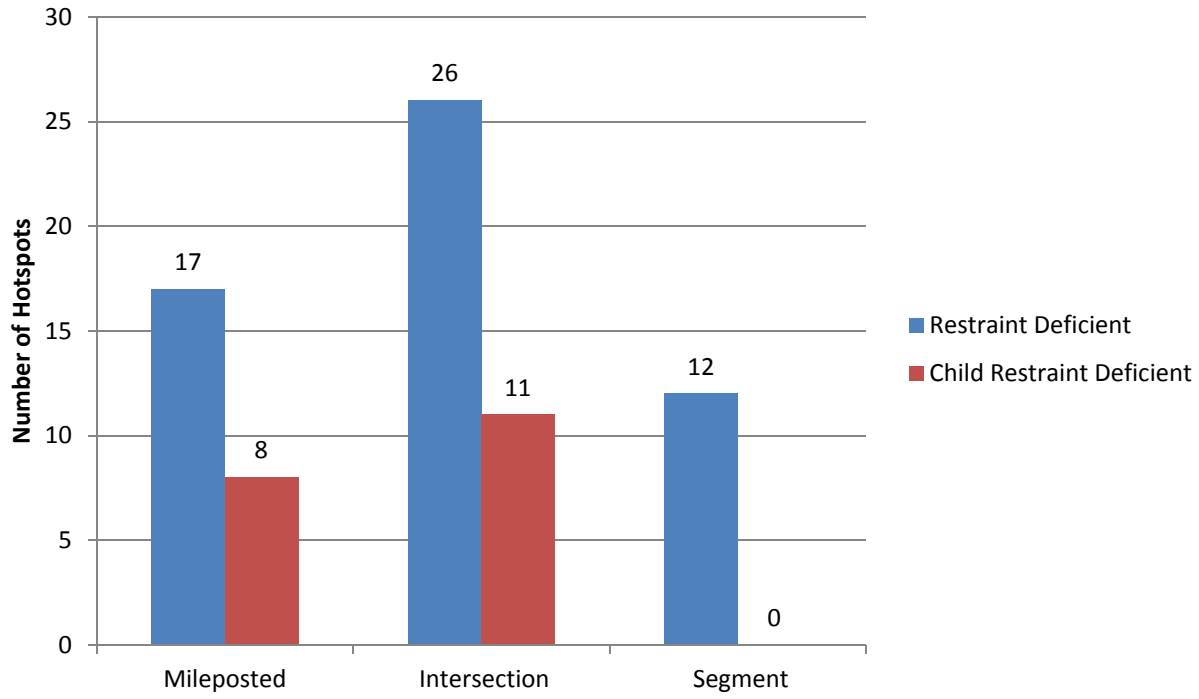
Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Morgan	Decatur	2	0	2	0	20	0	4	S-67	391	0	GLENN ST at SR-67	Decatur Police Department
2	Morgan	Decatur	2	0	2	0	15	0	7	S-67	325	315	SPRING AVE at SR-67	Decatur Police Department
3	Lauderdale	Florence	2	0	0	2	0	0	0		1960	0	COX CREEK PKWY at CS 1128 CO RD 19	Florence Police Department
4	Morgan	Decatur	2	0	0	2	0	0	0	6133	768	0	16TH AVE SE at MAGNOLIA ST SE	Decatur Police Department
5	Morgan	Decatur	2	0	0	2	0	0	0	5052	733	721	MAGNOLIA ST at SR-3 US-31 / NO NAME 5268	Decatur Police Department



### Top 2 Segments in the North Region with 2 or More Child Restrain Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Colbert	Rural Colbert	2	0	2	0	30	0	6	S-2	7342	7331	No Description Available	Alabama DPS – Quad Cities Post
2	Morgan	Decatur	2	0	0	2	0	0	0	5111	3445	3111	Between 37TH ST 5970 at ALA 6 & MCFARLAND BLVD and I059 at MCFARLAND BLVD	Decatur Police Department

## North East Region: Restraint Deficient and Child Restraint Deficient Hotspots



## Top 17 Mileposted Locations (10 Miles in Length) in the North East Region with 20 or More Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Marshall	Guntersville	S-1	291	301	46	3	23	20	0.11	12.61	414.48	22711	Guntersville Police Department
2	Marshall	Albertville	S-1	281	291	38	1	22	15	0.07	11.84	528.92	28982	Albertville Police Department
3	Etowah	Gadsden	S-1	260.3	270.3	38	1	18	19	0.1	11.32	370.16	20283	Gadsden Police Department
4	Madison	Rural Madison	S-1	342.1	352.1	32	2	17	13	0.08	14.38	390.04	21372	Alabama DPS - Huntsville Post
5	Madison	Huntsville	S-2	87.2	97.2	32	2	7	23	0.04	7.81	753.85	41307	Huntsville Police Department
6	Madison	Rural Madison	S-53	328.4	338.4	30	2	14	14	0.18	14	170.02	9316	Alabama DPS - Huntsville Post
7	Madison	Huntsville	S-53	306	316	30	0	19	11	0.03	11.33	967.45	53011	Huntsville Police Department
8	Etowah	Rural Etowah	S-1	271	281	27	1	16	10	0.08	17.41	332.28	18207	Alabama DPS - Gadsden Post
9	Jackson	Scottsboro	S-35	43.2	53.2	27	0	21	6	0.12	17.04	216.79	11879	Scottsboro Police Department
10	Madison	Rural Madison	S-2	100	110	26	4	15	7	0.06	21.15	459.74	25191	Alabama DPS - Huntsville Post
11	Marshall	Albertville	S-205	0.5	10.5	25	0	15	10	0.22	14	111.6	6115	Albertville Police Department
12	Etowah	Gadsden	S-1	250.3	260.3	25	0	13	12	0.07	10.8	378.51	20740	Gadsden Police Department
13	Etowah	Gadsden	S-25	210.5	220.5	25	0	9	16	0.07	7.2	381.17	20886	Gadsden Police Department
14	Madison	Huntsville	S-53	318	328	23	0	17	6	0.06	13.91	371.22	20341	Huntsville Police Department
15	Madison	Huntsville	S-1	329.5	339.5	23	1	10	12	0.03	10.43	901.59	49402	Huntsville Police Department
16	Marshall	Boaz	S-168	3.2	13.2	21	1	12	8	0.2	14.76	105.39	5775	Boaz Police Department
17	Etowah	Southside	S-77	99	109	20	2	15	3	0.05	20.5	364.4	19967	Southside Police Department

## Top 26 Intersections in the North East Region with 4 or More Restraint Deficient

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Madison	Madison	6	1	1	4	11.67	1	2	S-2	200	201	NO DESCRIPTION AVAILA- BLE	Madison Police Department
2	Madison	Rural Mad- ison	5	0	5	0	22	0	13	S-2	7918	0	DUG HILL RD at SR-2 US- 72	Alabama DPS - Huntsville Post
3	Jackson	Scottsboro	5	0	3	2	12	0	5	S-35	642	0	NO DESCRIPTION AVAILA- BLE	Scottsboro Police Department
4	Etowah	Gadsden	5	0	2	3	10	0	6	S-1	2315	0	ALA 1 US 431 ALA 74 at HOOD AVE 6092	Gadsden Police Department
5	Madison	Huntsville	5	0	2	3	8	0	4	S-53	1231	3444	JORDAN LN SR-53 at OAKWOOD AVE	Huntsville Police Department
6	Marshall	Albertville	5	0	2	3	8	0	3	S-1	358	8422	NO DESCRIPTION AVAILA- BLE	Albertville Police Department
7	Etowah	Hokes Bluff	4	1	2	1	25	1	5	S-74	45	0	NO DESCRIPTION AVAILA- BLE	Hokes Bluff Police Department
8	Marshall	Rural Mar- shall	4	0	3	1	20	0	6	1414	7556	0	NO DESCRIPTION AVAILA- BLE	Alabama DPS - Huntsville Post
9	Madison	Huntsville	4	0	3	1	17.5	0	5	6178	3858	0	MASTIN LAKE RD at PU- LASKI PIKE	Huntsville Police Department
10	Marshall	Guntersville	4	0	3	1	17.5	0	5	S-1	177	0	NO DESCRIPTION AVAILA- BLE	Guntersville Police Department
11	Marshall	Guntersville	4	1	1	2	15	1	6	S-1	1305	0	NO DESCRIPTION AVAILA- BLE	Guntersville Police Department
12	Madison	Huntsville	4	0	2	2	15	0	3	S-53	3277	3625	DRAKE AVE at MEMORIAL PKWY S	Huntsville Police Department
13	Madison	Huntsville	4	0	3	1	12.5	0	4	1016	2446	0	OLD MADISON PIKE at RIDE OUT RD	Huntsville Police Department
14	Madison	Huntsville	4	0	3	1	12.5	0	4	S-53	1614	0	BYRD SPRINGS RD at ME- MORIAL PKWY S	Huntsville Police Department
15	Marshall	Albertville	4	0	2	2	12.5	0	4	S-1	166	0	NO DESCRIPTION AVAILA- BLE	Albertville Police Department
16	Madison	Huntsville	4	0	2	2	12.5	0	3	S-1	897	5198	MEMORIAL PKWY N SR-1 at SPARKMAN DR AT US 72 E	Huntsville Police Department
17	Etowah	Gadsden	4	0	2	2	10	0	5	S-1	2317	0	ALA 1 US 431 ALA 74 at 3RD ST 6102	Gadsden Police Department

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
18	Etowah	Rural Etowah	4	0	2	2	10	0	4	S-1	8196	7373	NO DESCRIPTION AVAILA- BLE	Alabama DPS - Gadsden Post
19	Madison	Huntsville	4	0	2	2	10	0	3	S-1	619	0	MASTIN LAKE RD at ME- MORIAL PKWY N	Huntsville Police Department
20	Etowah	Gadsden	4	0	2	2	10	0	2	S-1	859	0	4TH ST at ALA 7	Gadsden Police Department
21	Etowah	Gadsden	4	0	2	2	7.5	0	3	S-1	2199	0	3RD ST at MEIGHAN BLVD US 278 ALA 1	Gadsden Police Department
22	Marshall	Boaz	4	0	1	3	7.5	0	2	S-1	244	0	NO DESCRIPTION AVAILA- BLE	Boaz Police De- partment
23	Madison	Huntsville	4	0	1	3	5	0	2	S-2	8087	62772	SLAUGHTER RD COUNTY at UNIVERSITY DR SR-2	Huntsville Police Department
24	Jackson	Scottsboro	4	0	1	3	5	0	1	S-2	1274	642	NO DESCRIPTION AVAILA- BLE	Scottsboro Police Department
25	Madison	Huntsville	4	0	1	3	2.5	0	1	S-53	2356	0	JORDAN LN SR-53 at UNI- VERSITY DR	Huntsville Police Department
26	Madison	Huntsville	4	0	0	4	0	0	2	7219	2065	0	DRAKE AVE at TRIANA BLVD	Huntsville Police Department

## Top 13 Segments in the North East Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Madison	Rural Madison	5	0	3	2	14	0	5	S-53	7570	7587	No Description Available	Alabama DPS - Huntsville Post
2	Madison	Huntsville	5	0	3	2	10	0	7	S-2	2512	4047	No Description Available	Huntsville Police Department
3	Etowah	Rural Etowah	4	0	4	0	30	0	7	S-74	7206	7393	No Description Available	Alabama DPS - Gadsden Post
4	Jackson	Rural Jackson	4	1	3	0	27.5	1	6	S-73	8182	8186	No Description Available	Alabama DPS - Huntsville Post
5	Jackson	Rural Jackson	4	1	2	1	27.5	1	4	S-40	7214	8287	No Description Available	Alabama DPS - Huntsville Post
6	Dekalb	Rural Dekalb	4	0	4	0	27.5	0	8	I-59	34	8816	No Description Available	Alabama DPS - Gadsden Post
7	Dekalb	Rural Dekalb	4	1	2	1	25	1	5	I-59	8816	167	No Description Available	Alabama DPS - Gadsden Post
8	Jackson	Scottsboro	4	0	4	0	25	0	6	S-35	8210	69	No Description Available	Scottsboro Police Department
9	Marshall	Guntersville	4	1	1	2	17.5	1	2	S-1	198	150	No Description Available	Guntersville Police Department
10	Madison	Rural Madison	4	0	3	1	17.5	0	4	1154	7311	7313	No Description Available	Alabama DPS - Huntsville Post
11	Jackson	Rural Jackson	4	0	3	1	15	0	4	1034	7130	7165	No Description Available	Scottsboro Police Department
12	Madison	Rural Madison	4	0	2	2	12.5	0	2	S-2	7918	7915	No Description Available	Alabama DPS - Huntsville Post
13	Dekalb	Rural Dekalb	4	0	4	0	27.5	0	7	I-59	34	8816	No Description Available	Alabama DPS - Gadsden Post

## Top 8 Mileposted Locations (10 miles in Length) in the North East Region with 4 or More Child Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Marshall	Guntersville	S-1	285.7	295.7	9	0	4	5	8.89	0.02	539.78	29577	Guntersville Police Department
2	Etowah	Gadsden	S-1	258.7	268.7	8	0	5	3	16.25	0.02	417.69	22887	Gadsden Police Department
3	Madison	Rural Madison	S-1	343.5	353.5	6	1	2	3	16.67	0.02	367.81	20154	Alabama DPS - Huntsville Post
4	Madison	Huntsville	I-565	8	18	5	0	1	4	6	0	1311.04	71838	Huntsville Police Department
5	Etowah	Attalla	S-77	105	115	5	0	2	3	4	0.02	273.59	14991	Attalla Police Department
6	Marshall	Albertville	S-1	275	285	4	0	1	3	5	0.01	415.68	22777	Albertville Police Department
7	Madison	Huntsville	S-1	329.5	339.5	4	0	1	3	5	0	901.59	49402	Huntsville Police Department
8	Marshall	Albertville	S-205	5	15	4	0	0	4	0	0.04	93	5096	Albertville Police Department

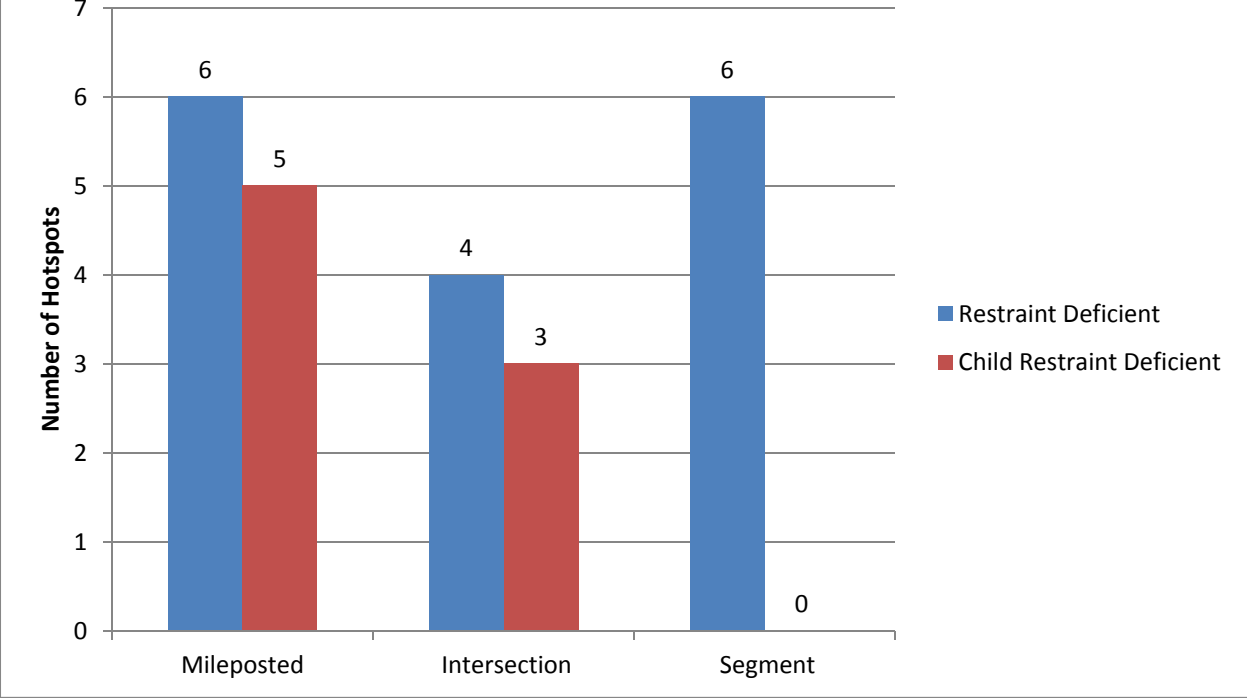
## Top 11 Intersections in the North East Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Madison	Madison	3	0	0	3	0	0	0	1005	41	42	NO DESCRIPTION AVAILABLE	Madison Police Department
2	Etowah	Gadsden	2	0	1	1	15	0	5	S-1	2200	2201	4TH ST at ALA 1 & MEIGHAN BLVD	Gadsden Police Department
3	Marshall	Guntersville	2	0	2	0	15	0	3	S-1	9500	0	NO DESCRIPTION AVAILABLE	Guntersville Police Department
4	Madison	Rural Madison	2	0	1	1	10	0	3	1324	7696	0	DARWIN RD at MOORES MILL RD	Alabama DPS - Huntsville Post
5	Jackson	Scottsboro	2	0	1	1	10	0	2	S-2	642	642	NO DESCRIPTION AVAILABLE	Scottsboro Police Department
6	Madison	Huntsville	2	0	1	1	10	0	1		5755	0	MEM PKWY SER RD W SIDE at UNIVERSITY DR	Huntsville Police Department
7	Madison	Huntsville	2	0	0	2	0	0	1	S-2	8087	62772	SLAUGHTER RD COUNTY at UNIVERSITY DR SR-2	Huntsville Police Department
8	Madison	Huntsville	2	0	0	2	0	0	0	1028	2161	0	PULASKI PIKE at UNIVERSITY DR	Huntsville Police Department
9	Madison	Madison	2	0	0	2	0	0	0		2158	202	NO DESCRIPTION AVAILABLE	Madison Police Department
10	Madison	Madison	2	0	0	2	0	0	0	197	1276	0	NO DESCRIPTION AVAILABLE	Madison Police Department
11	Marshall	Guntersville	2	0	0	2	0	0	0	S-1	9496	0	NO DESCRIPTION AVAILABLE	Guntersville Police Department

## Top 0 Segments in the North East Region with 2 or More Child Restraint Deficient No Reported Locations



### South East Region: Restraint Deficient and Child Restraint Deficient Hotspots



## Top 6 Mileposted Locations (10 Miles in Length) in the South East Region with 20 or More Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Barbour	Eufaula	S-1	59.9	69.9	23	1	9	13	0.06	10	377.87	20705	Eufaula Police Department
2	Houston	Dothan	S-210	3.3	13.3	22	0	18	4	0.05	15	470.67	25790	Dothan Police Department
3	Houston	Rural Houston	S-1	5.5	15.5	21	1	10	10	0.06	13.33	352.24	19301	Alabama DPS – Dothan Post
4	Houston	Dothan	S-53	22.5	32.5	21	2	5	14	0.05	9.52	420.08	23018	Dothan Police Department
5	Pike	Troy	S-10	162.2	172.2	20	0	15	5	0.07	17	279.3	15304	Troy Police Department
6	Coffee	Enterprise	S-12	179.2	189.2	20	1	13	6	0.06	16.5	350.02	19179	Enterprise Police Department

## Top 4 Intersections in the South East Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Coffee	Rural Coffee	4	1	2	1	22.5	1	6	S-167	7615	0	NO DESCRIPTION AVAILABLE	Alabama DPS – Dothan Post
2	Coffee	Enterprise	4	0	3	1	12.5	0	6	S-12	1102	0	NO DESCRIPTION AVAILABLE	Enterprise Police Department
3	Houston	Dothan	4	0	2	2	10	0	5	S-210	1256	3401	ENTERPRISE HWY US 84 at SR 210 ROSS CLARK CIRCLE	Dothan Police Department
4	Houston	Dothan	4	0	1	3	2.5	0	1	S-53	2230	0	MONTGOMERY HWY US 231 at WESTGATE PKWY	Dothan Police Department

### Top 6 Segments in the South East Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Butler	Rural Butler	5	1	3	1	26	4	9	I-65	7470	7475	No Description Available	Alabama DPS - Evergreen Post
2	Butler	Rural Butler	5	0	4	1	24	0	7	I-65	7342	7475	No Description Available	Alabama DPS - Evergreen Post
3	Butler	Rural Butler	5	0	4	1	20	0	5	I-65	7108	7113	No Description Available	Alabama DPS - Evergreen Post
4	Houston	Dothan	5	0	3	2	8	0	6	S-210	1256	900	No Description Available	Dothan Police Department
5	Henry	Rural Henry	4	0	4	0	30	0	4	1169	184	7362	No Description Available	Alabama DPS - Dothan Post
6	Pike	Troy	4	0	3	1	15	0	8	S-10	110	109	No Description Available	Troy Police Department

### Top 5 Mileposted Locations (10 miles in Length) in the South East Region with 4 or More Child Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Pike	Troy	S-10	168.4	178.4	6	0	4	2	0.01	10	409.22	22423	Troy Police Department
2	Barbour	Eufaula	S-1	57.5	67.5	4	0	3	1	0.01	12.5	335.75	18397	Eufaula Police Department
3	Houston	Dothan	S-21	7	14	4	0	2	2	0.01	10	315.72	24714	Dothan Police Department
4	Houston	Dothan	S-12	207	217	4	0	1	3	0.01	2.5	335.49	18383	Dothan Police Department
5	Houston	Dothan	S-53	24	34	4	0	0	4	0.01	0	418.71	22943	Dothan Police Department

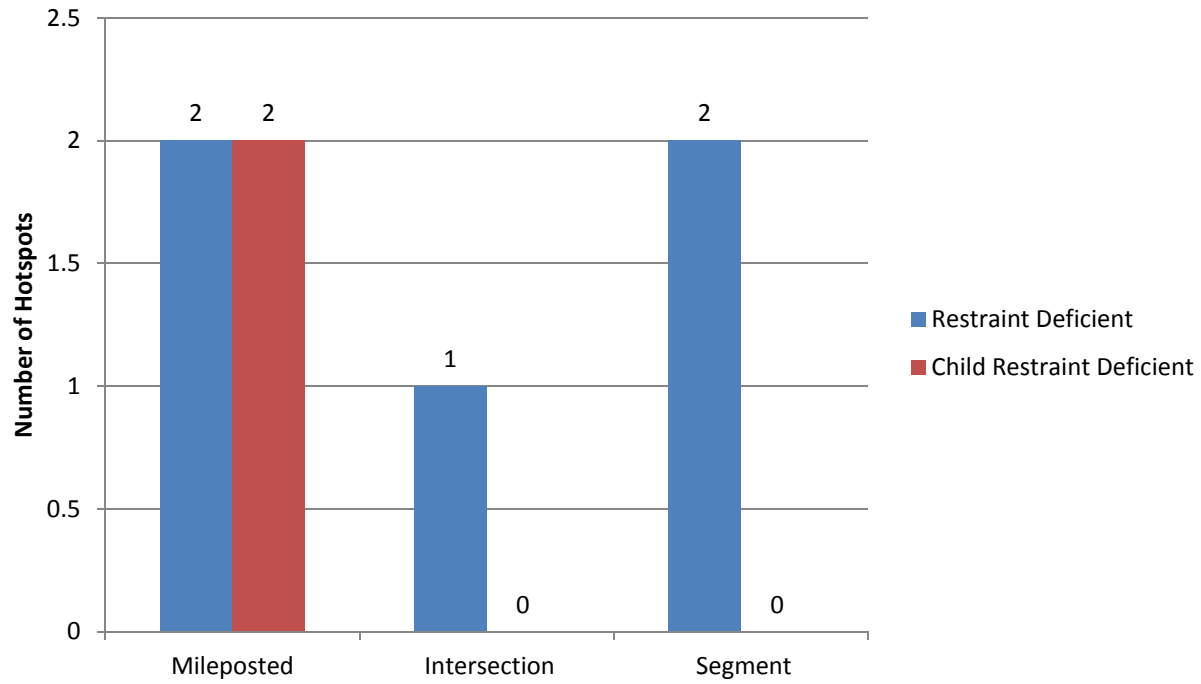
### Top 3 Intersections in the South East Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Houston	Dothan	2	0	1	1	10	0	1	5488	2442	0	ROCK SPRING RD at DENTON RD/WESTGATE PKWY	Dothan Police Department
2	Houston	Dothan	2	0	1	1	5	0	1	S-12	1156	1153	NO NAME at PLANT ST	Dothan Police Department
3	Houston	Dothan	2	0	0	2	0	0	0	S-53	2208	2209	MONTGOMERY HWY US 231 at MURPHEY MILL RD	Dothan Police Department

### Top 0 Segments in the South East Region with 2 or More Child Restraint Deficient Crashes

No Reported Locations

## South West Region: Restraint Deficient and Child Restraint Deficient Hotspots



## Top 2 Mileposted Locations (10 Miles in Length) in the South West Region with 20 or More Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Dallas	Rural Dallas	S-8	78.9	88.9	22	4	12	6	0.08	19.55	289.61	15869	Alabama DPS - Selma Post
2	Conecuh	Rural Conecuh	I-65	92.7	102.7	21	2	12	7	0.05	16.19	411.39	22542	Alabama DPS - Evergreen Post

## Top 1 Intersection in the South West Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Monroe	Rural Monroe	4	1	2	1	25	1	3	S-21	7237	0	No Description Available	Alabama DPS - Evergreen Post

## Top 2 Segments in the South West Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Conecuh	Rural Conecuh	5	1	4	0	28	1	15	I-65	7260	7606	No Description Available	Alabama DPS - Evergreen Post
2	Conecuh	Rural Conecuh	4	0	2	2	12.5	0	6	I-65	7295	7329	No Description Available	Alabama DPS - Evergreen Post

**Top 2 Mileposted Locations (10 miles in Length) in the South West Region with 4 or More Child Restraint Deficient Crashes**

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	C/MVM	MVM	ADT	Agency ORI
1	Monroe	Rural Monroe	S-21	37	47	7	0	5	2	15.71	0.06	122.69	6723	Monroeville Police Department
2	Dallas	Selma	S-8	80.7	90.7	6	0	4	2	6.67	0.02	293.92	16105	Selma Police Department

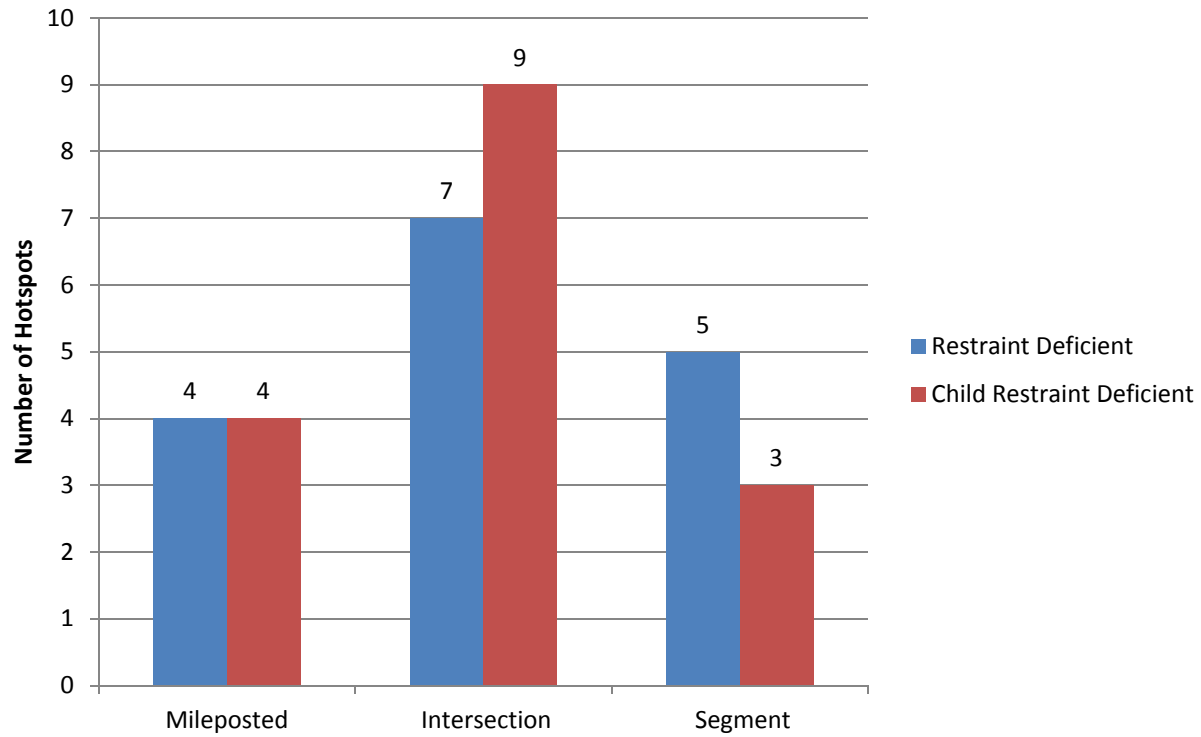
**Top 0 Intersections in the South West Region with 2 or More Child Restraint Deficient Crashes**

No Reported Locations

**Top 0 Segments in the South West Region with 2 or More Child Restraint Deficient Crashes**

No Reported Locations

## West Region: Restraint Deficient and Child Restraint Deficient Hotspots





## Top 4 Mileposted Locations (10 Miles in Length) in the West Region with 20 or More Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Tuscaloosa	Tuscaloosa	S-215	1	11	46	0	22	24	0.16	9.13	293.72	16094	Tuscaloosa Police Department
2	Tuscaloosa	Rural Tuscaloosa	I-59	67.7	77.7	26	3	13	10	0.03	17.31	780.83	42785	Alabama DPS - Tuscaloosa Post
3	Tuscaloosa	Tuscaloosa	S-6	43.4	53.4	25	2	11	12	0.03	11.6	731.46	40080	Tuscaloosa Police Department
4	Tuscaloosa	Northport	S-13	194.9	204.9	20	0	8	12	0.05	8.5	443.07	24278	Northport Police Department

## Top 7 Intersections in the West Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Tuscaloosa	Tuscaloosa	6	0	4	2	11.67	0	7	S-69	12172	0	NO DESCRIPTION AVAILABLE	Tuscaloosa Police Department
2	Tuscaloosa	Northport	6	0	2	4	8.33	0	5	S-6	606	7780	AL 13 US 43 at AL 6 US 82	Northport Police Department
3	Tuscaloosa	Tuscaloosa	6	0	3	3	8.33	0	3	S-7	16	0	ALA 6 MC FARLAND BLVD at AL 7 MCFARLAND BLVD	Tuscaloosa Police Department
4	Tuscaloosa	Northport	6	0	1	5	1.67	0	1	S-6	391	0	AL 13 US 43 at AL 6 / MCFARLAND BLVD	Northport Police Department
5	Tuscaloosa	Tuscaloosa	4	0	3	1	12.5	0	2	S-6	5202	4193	NO DESCRIPTION AVAILABLE	Tuscaloosa Police Department
6	Tuscaloosa	Tuscaloosa	4	0	1	3	2.5	0	1	S-6	579	576	13TH ST E 5739 at AL 6 MCFARLAND BLVD 5851	Tuscaloosa Police Department
7	Tuscaloosa	Northport	4	0	0	4	0	0	0	S-6	1251	0	AL 6 US 82 at WATERMELON RD 1365	Northport Police Department

### Top 5 Segments in the West Region with 4 or More Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Tuscaloosa	Rural Tuscaloosa	7	0	3	4	11.43	0	5	I-59	82	8842	No Description Available	Alabama DPS - Tuscaloosa Post
2	Greene	Rural Greene	4	2	1	1	30	2	2	I-59	7300	7314	No Description Available	Alabama DPS - Tuscaloosa Post
3	Tuscaloosa	Tuscaloosa	4	0	4	0	25	0	7	1185	5203	5030	No Description Available	Tuscaloosa Police Department
4	Greene	Rural Greene	4	0	3	1	15	0	8	I-59	7524	7534	No Description Available	Alabama DPS - Tuscaloosa Post
5	Tuscaloosa	Tuscaloosa	4	0	1	3	5	0	2	S-6	579	195	No Description Available	Tuscaloosa Police Department

### Top 4 Mileposted Locations (10 miles in Length) in the West Region with 4 or More Child Restraint Deficient Crashes

Rank	County	City	Route	Beg MP	End MP	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	C/MVM	Severity Index	MVM	ADT	Agency ORI
1	Tuscaloosa	Tuscaloosa	S-215	2.5	12.5	5	0	2	3	0.02	6	299.5	16411	Tuscaloosa Police Department
2	Greene	Rural Greene	I-59	24.8	34.8	4	0	3	1	0.01	22.5	365.58	20032	Alabama DPS - Tuscaloosa Post
3	Tuscaloosa	Rural Tuscaloosa	I-59	98.5	108.5	4	0	0	4	0	0	1027.35	56293	Alabama DPS - Tuscaloosa Post
4	Tuscaloosa	Rural Tuscaloosa	S-69	140.7	150.7	4	0	0	4	0	0	513.34	28128	Alabama DPS - Tuscaloosa Post

## Top 11 Intersections in the West Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Tuscaloosa	Tuscaloosa	2	0	1	1	15	0	7	S-6	624	0	ALA 6 & MCFARLAND BLVD at 31ST ST E	Tuscaloosa Police Department
2	Tuscaloosa	Tuscaloosa	2	0	1	1	5	0	3	S-69	12172	0	NO DESCRIPTION AVAILABLE	Tuscaloosa Police Department
3	Tuscaloosa	Tuscaloosa	2	0	0	2	0	0	1	1365	591	0	ALA 6 MC FARLAND BLVD at RICE MINE RD 1365	Tuscaloosa Police Department
4	Tuscaloosa	Tuscaloosa	2	0	0	2	0	0	0	5493	593	0	ALA 6 MC FARLAND BLVD at 3RD CT N 5493	Tuscaloosa Police Department
5	Tuscaloosa	Northport	2	0	0	2	0	0	0	5369	8264	0	NO DESCRIPTION AVAILABLE	Northport Police Department
6	Tuscaloosa	Tuscaloosa	2	0	0	2	0	0	0	S-215	156	0	ALA 215 / 24TH AVE at 10TH ST 5173	Tuscaloosa Police Department
7	Tuscaloosa	Northport	2	0	0	2	0	0	0	S-6	1251	0	AL 6 US 82 at WATER-MELON RD 1365	Northport Police Department
8	Tuscaloosa	Tuscaloosa	2	0	0	2	0	0	0	S-69	9844	0	NO DESCRIPTION AVAILABLE	Tuscaloosa Police Department
9	Tuscaloosa	Tuscaloosa	2	0	0	2	0	0	0	S-6	269	6054	15TH ST 5168 at ALA 6 MCFARLAND & 15 ST E	Tuscaloosa Police Department
10	Tuscaloosa	Northport	2	0	0	2	0	0	0	S-6	391	0	AL 13 US 43 at AL 6 / MCFARLAND BLVD	Northport Police Department
11	Tuscaloosa	Northport	2	0	0	2	0	0	0	S-13	378	0	10TH AVE 5228 at ALA 13 MC FARLAND BLVD	Northport Police Department

### Top 3 Segments in the West Region with 2 or More Child Restraint Deficient Crashes

Rank	County	City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Severity Index	People Killed	People Injured	Link	Node 1	Node 2	Location	Agency ORI
1	Tuscaloosa	Tuscaloosa	3	0	1	2	3.33	0	1	S-6	65	9228	Between 37TH ST 5970 at ALA 6 & MCFARLAND BLVD and I059 at MCFARLAND BLVD	Tuscaloosa Police Department
2	Tuscaloosa	Northport	2	1	0	1	25	1	0	S-6	1251	5123	Between AL 6 US 82 at WATERMELON RD 1365 and NO DESCRIPTION AVAILABLE	Northport Police Department
3	Tuscaloosa	Tuscaloosa	2	0	1	1	10	0	1	S-6	16	15	Between ALA 6 MC FARLAND BLVD at AL 7 MCFARLAND BLVD and ALA 6 MC FARLAND BLVD at CITY STREET 6095	Tuscaloosa Police Department

## **ATTACHMENT B – RESTRAINT ISSUES DETAILED PROBLEM IDENTIFICATION**

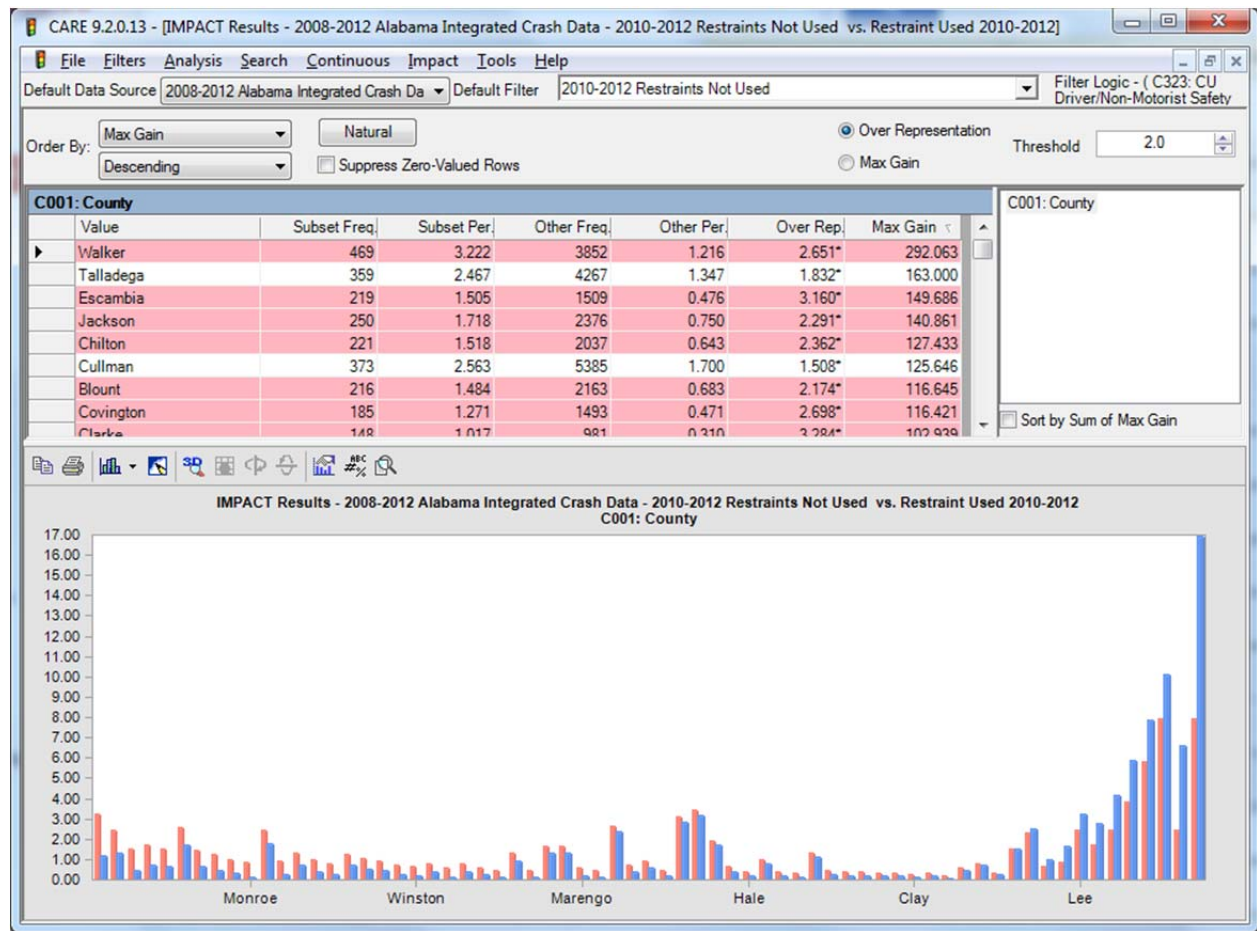
## Introduction

This problem identification study was conducted in order to develop countermeasures for crashes involving causal drivers who do not use restraints. This study contains detailed data analysis performed using data that is consistent with that used in the FY2014 HSP, calendar years 2010-2012. CARE IMPACT displays are included that were used to generate 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 their use by all passengers in the vehicle.

## Geographical Factors

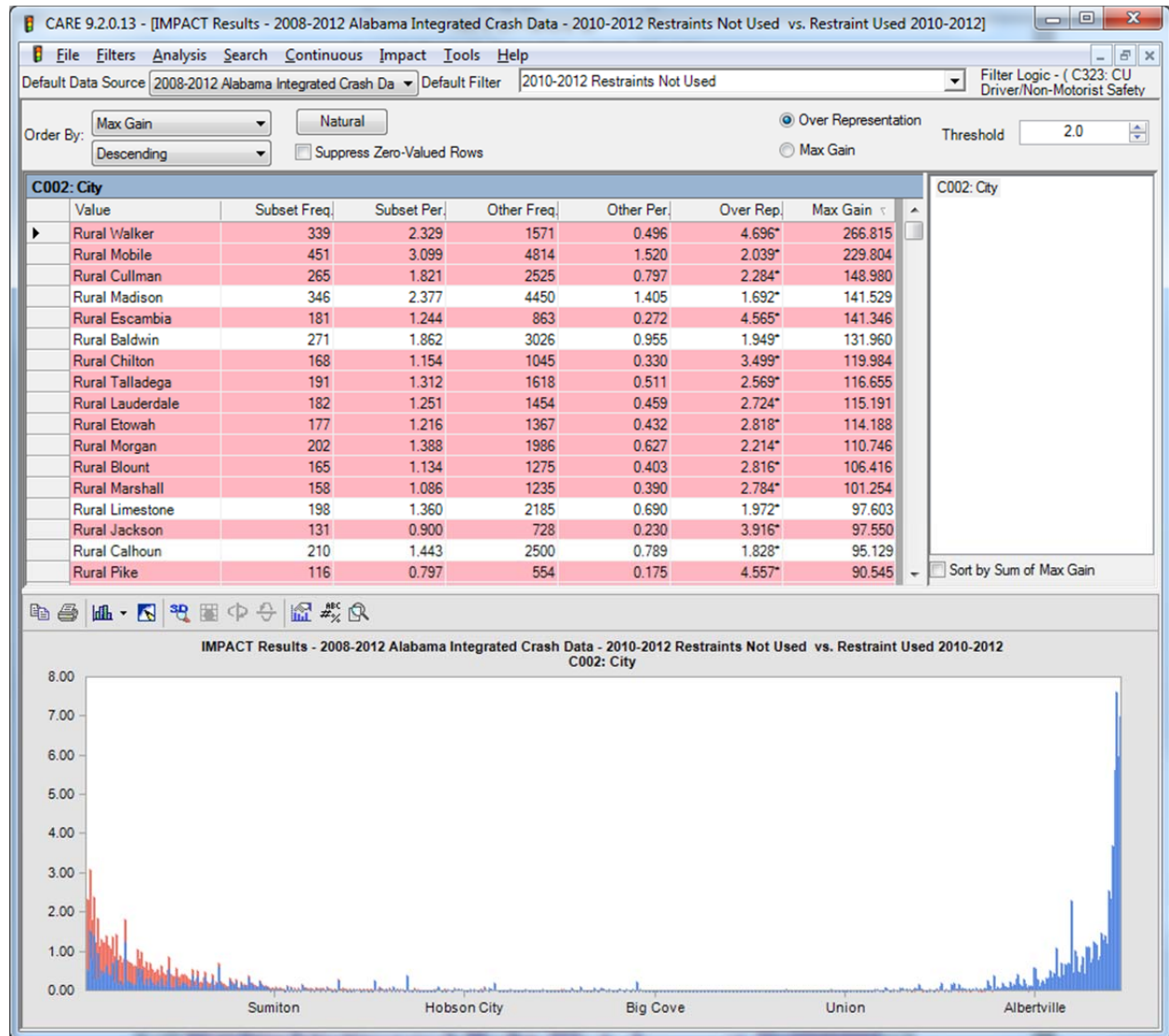
Geographical factors were analyzed in order to determine which areas are over-represented for crashes involving drivers who did not use restraints. In order to determine these problem areas, geographical factors were analyzed in the following categories: county, city, rural versus urban, highway classification, and locale.

### County



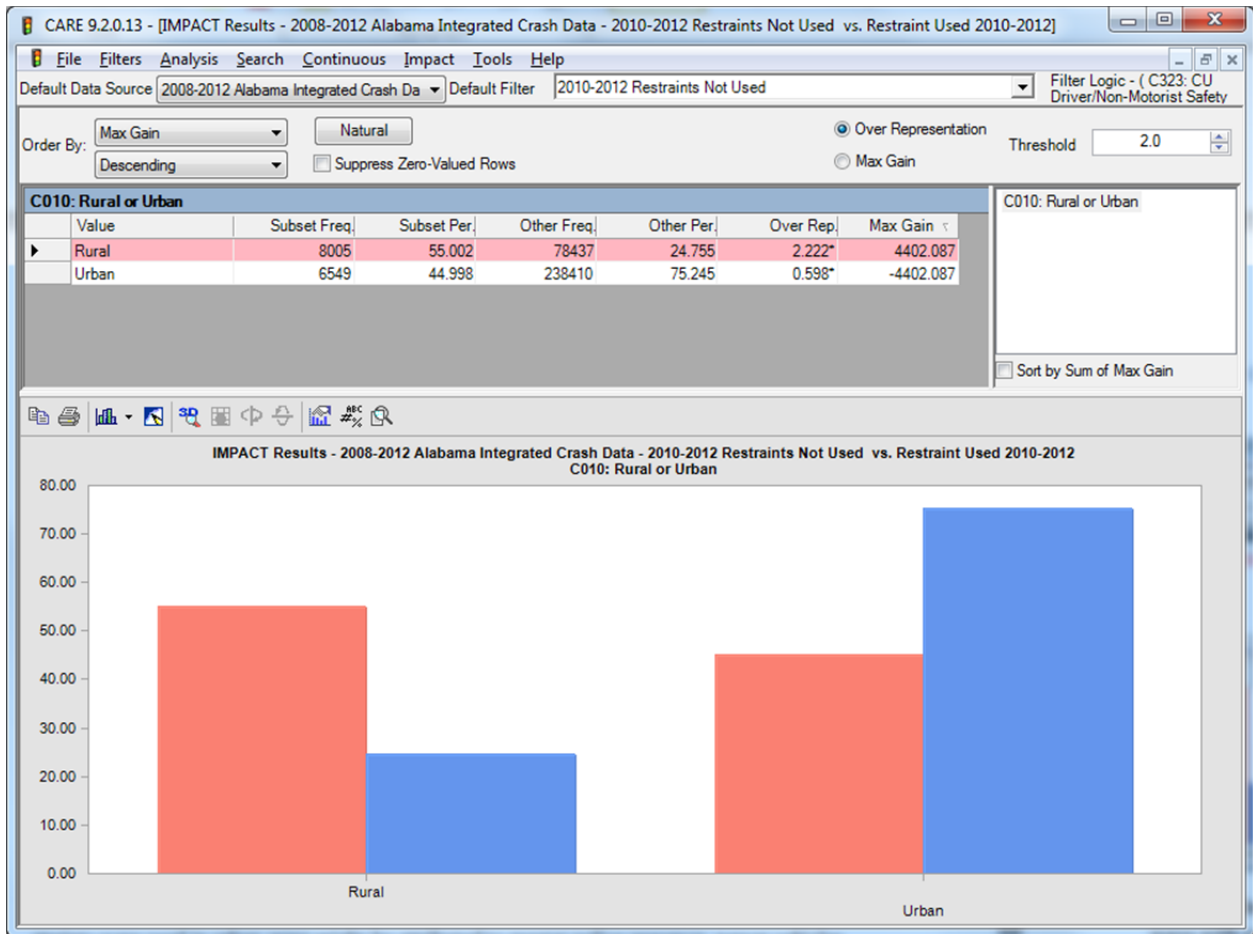
The counties with the greatest over-representation factors for crashes in which the driver failed to use restraints include Monroe, Choctaw, Lamar, and Wilcox.

## City



Over represented cities and county rural areas listed in the order of maximum gain are: rural Walker, rural Mobile, rural Cullman, and rural Madison. Almost all of the over representation occurs in the rural county areas. The most under represented cities in order of “best” first are as follows: Montgomery, Birmingham, Mobile, and Tuscaloosa.

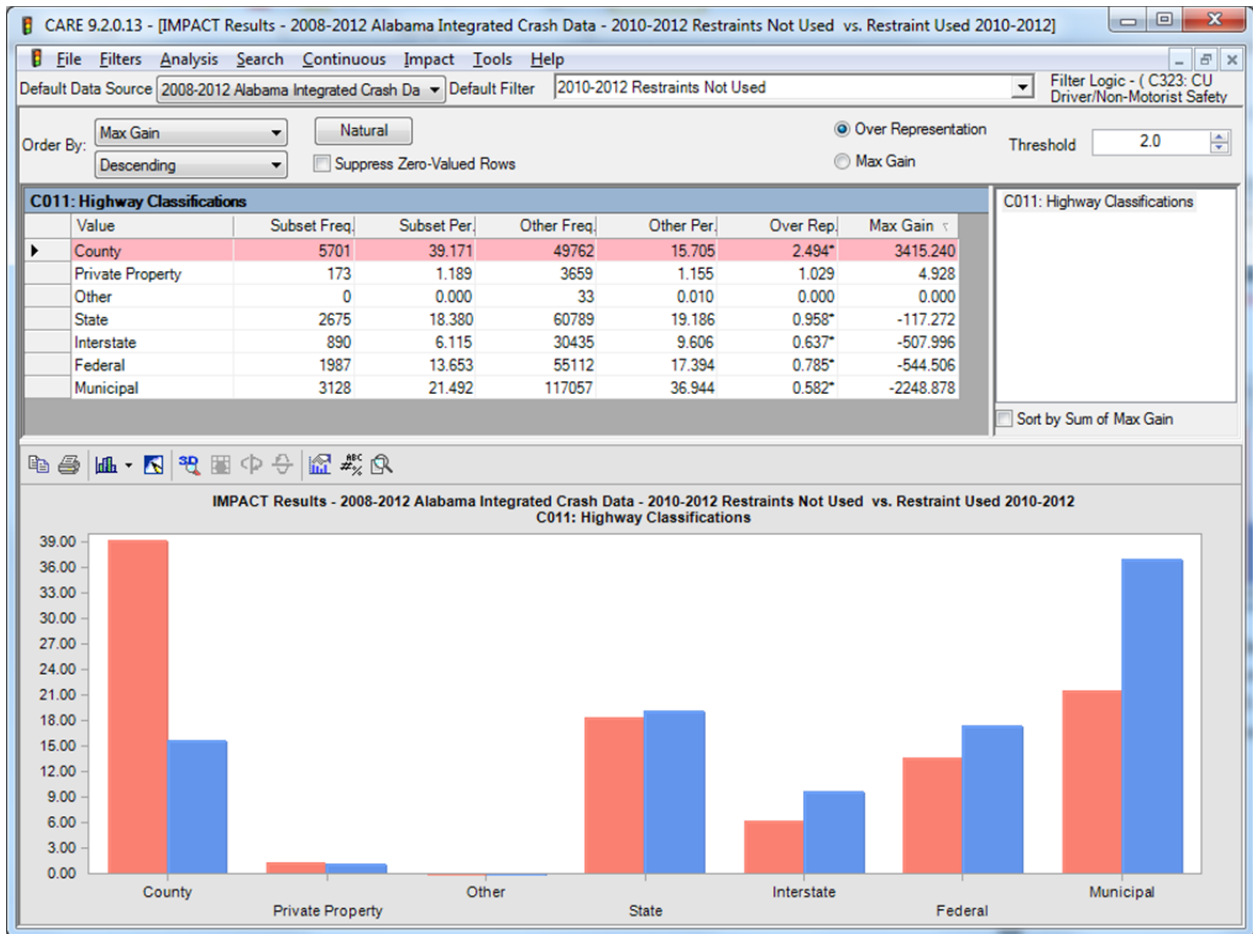
## Rural/Urban



As expected from the city results above, the number of crashes involving drivers who use no restraints is greatly over represented in rural 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 educations efforts, and the demographics of urban drivers in general.

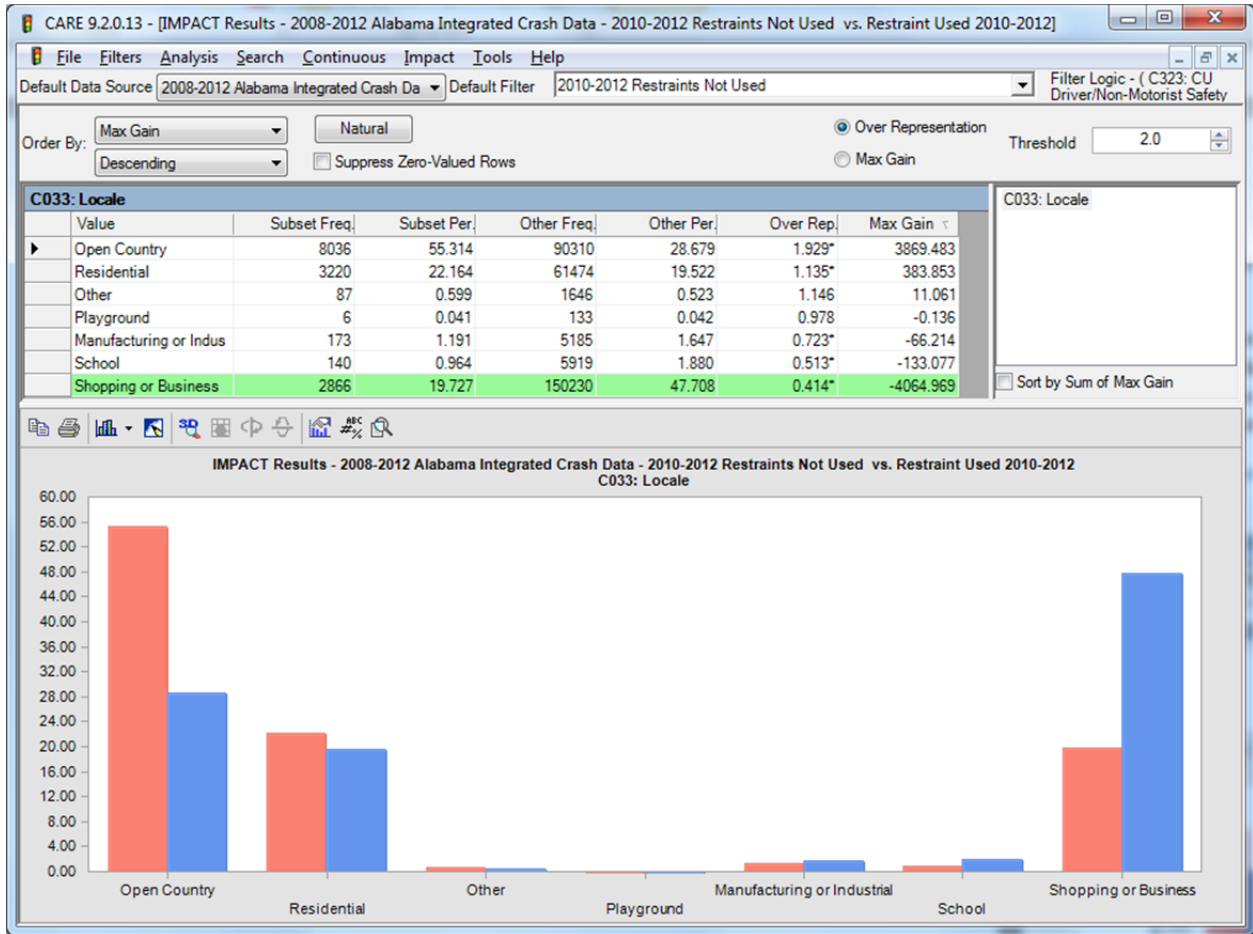


## Highway Classification



Crash incidents in which no restraints were used are greatly over represented on county highways with nearly 2.5 times the expected number of crashes. These crashes were only slightly over represented on private property, where restraints are not mandated. The proportion of crashes in which restraints were used is greater in state, interstate, federal, and municipal highway areas.

# Locale

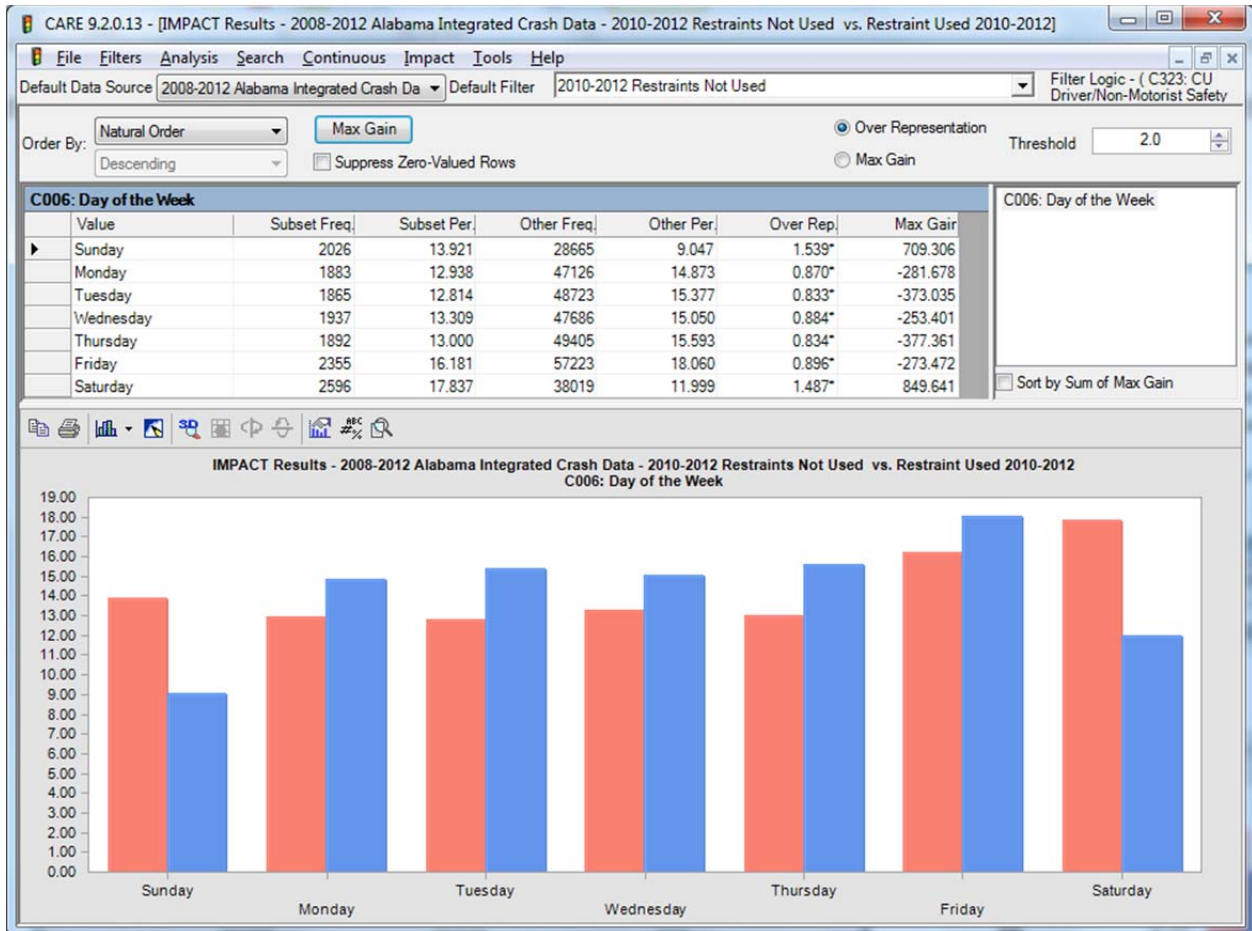


These crash incidents involving no restraints are over represented in open country areas. However, school and shopping areas are significantly under-represented, indicating that crashes in these areas generally involve drivers who used restraints.

## Time Factors

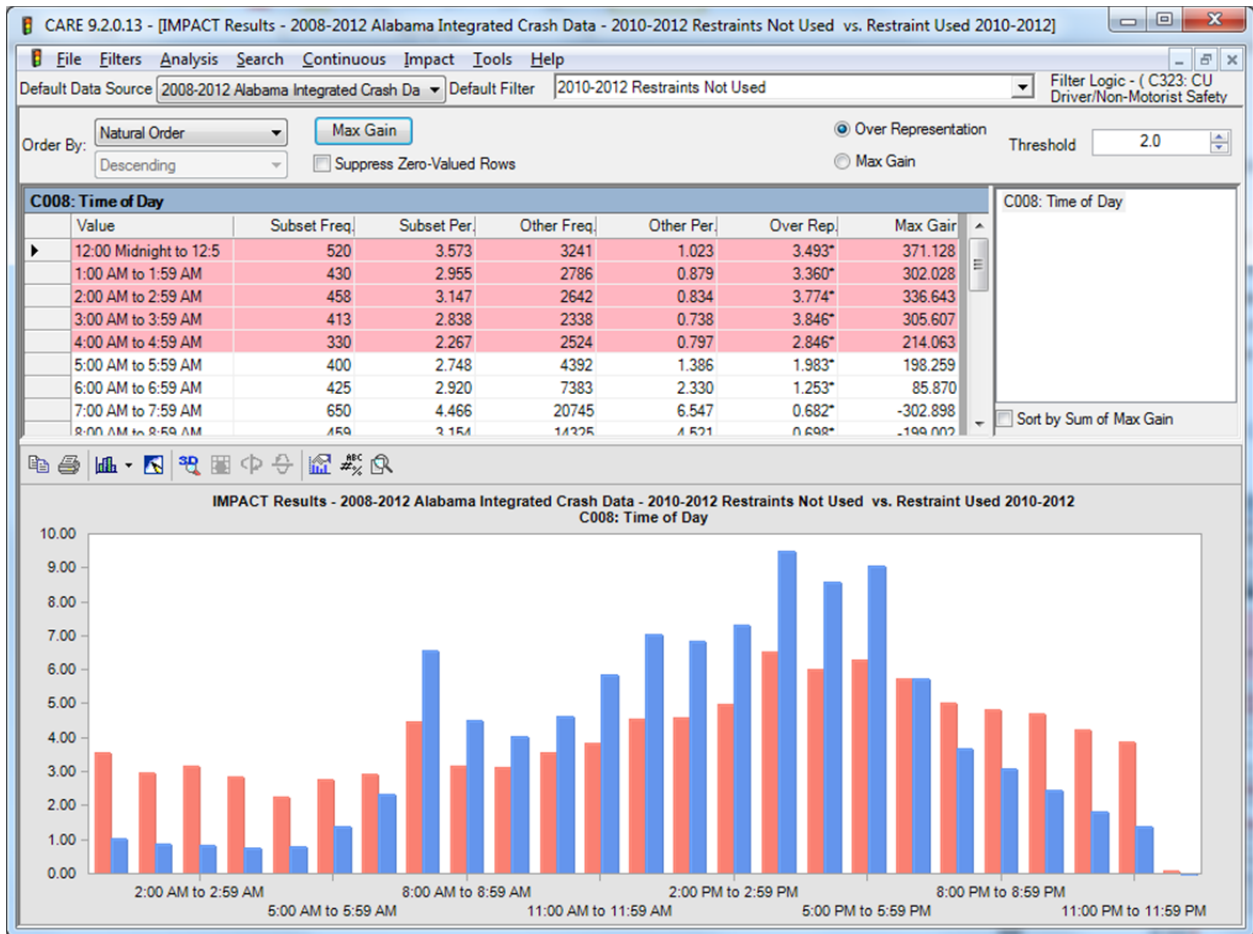
Time factors were also analyzed in several different categories to determine over-representation for day of the week and time of day. Analysis of these time factors allows for the determination of particular days of week or times of day in which more crashes occur with drivers who did not use restraints.

### Day of the Week



The weekend is over represented for crashes involving causal drivers who failed to use restraints, demonstrating a heavy correlation with alcohol involved crashes. Sunday has 1.5 times the expected number of crashes, and Saturday has 1.5 times the expected number of crashes involving causal drivers who failed to use restraints.

## Time of Day

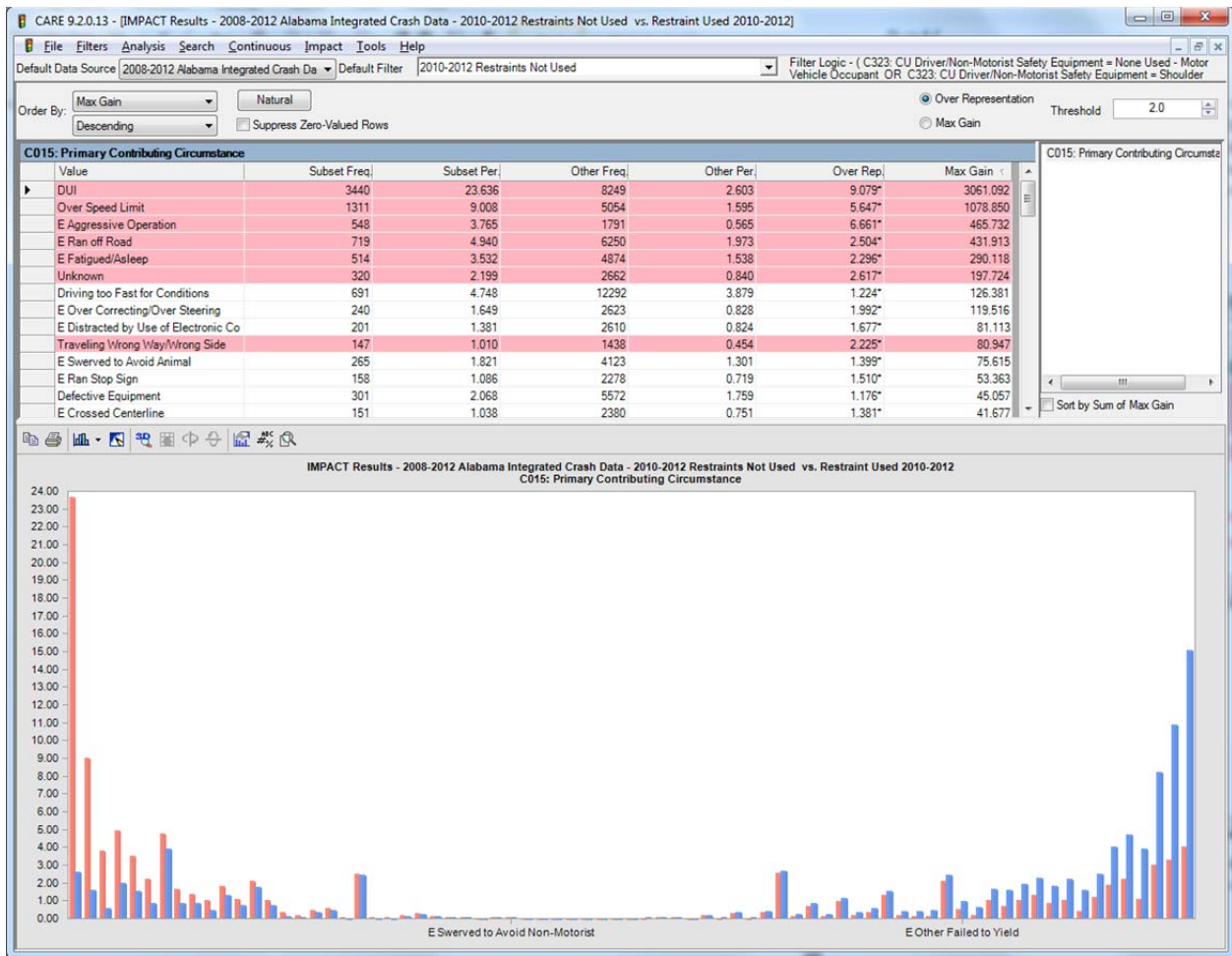


The relative probability of crashes involving no restraints is generally greater before and after standard work and rush hours. Over representation peaks during the 12 PM to 5 AM period and then tapers off, falling back below crashes involving causal drivers who use restraints in the 7 AM to 8 AM time period. This chart has a very strong resemblance to its DUI counterpart.

# 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 over-representation 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 do not use restraints.

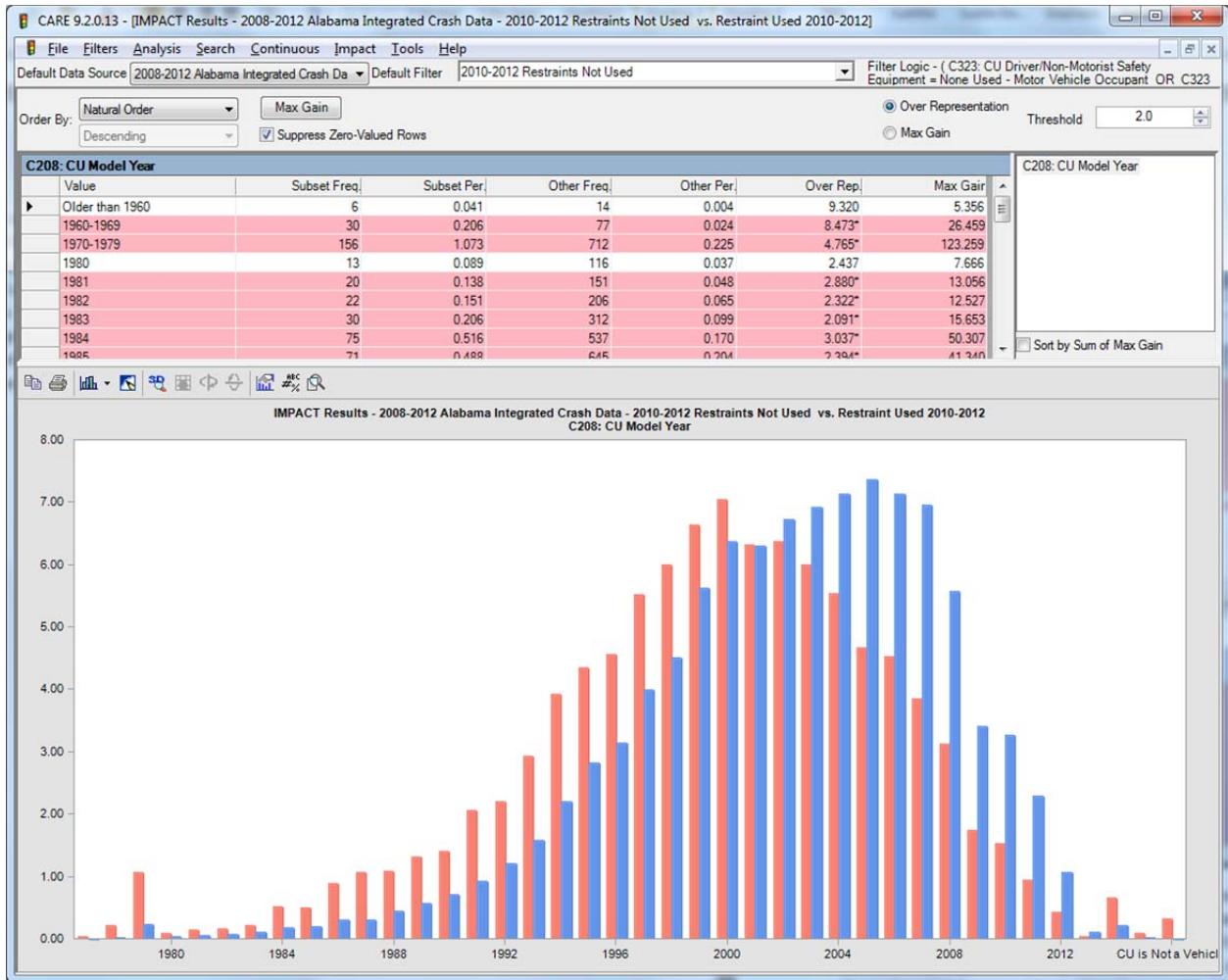
## Primary Contributing Circumstance



Over representation factors indicate that certain risk-taking behaviors are often 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, running off the road, aggressive operation, and fatigue or sleep. It is obvious that the presence of seatbelts 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 of those who are impaired to consider the life-saving benefits of restraint use. Additionally, analysis of other contributing circumstanc-

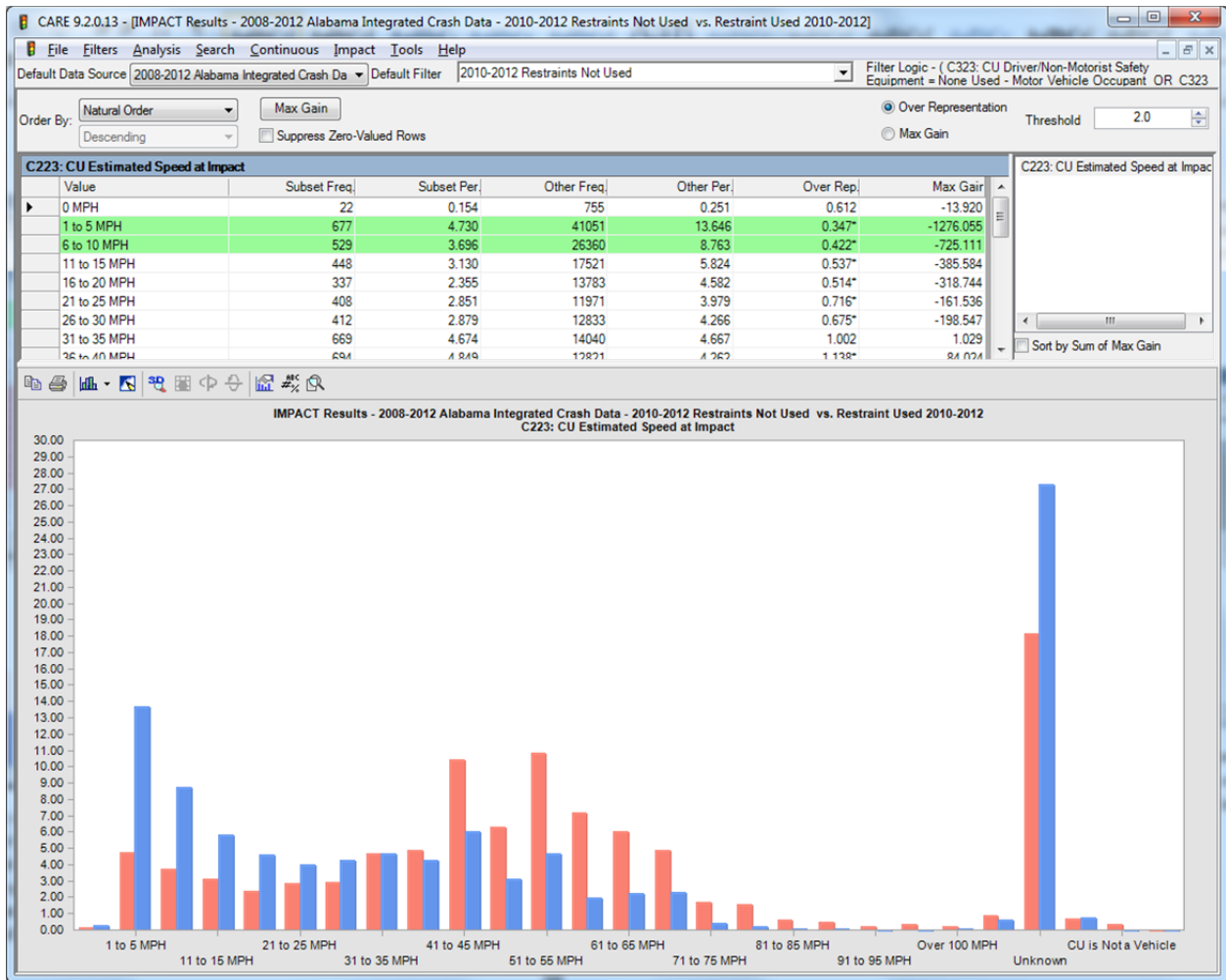
es presented similar risk-taking behaviors associated with crashes in which causal drivers did not use restraints. In order of maximum gain, these include: DUI, over the speed limit, running off the road, aggressive operation, and over correction. Other over represented contributing circumstances include traveling the wrong way, vehicle left in road, running stop signs, driver condition, improper parking, and wrong side of the road.

## Vehicle Age – Model Year



Crashes attributed to drivers who used no restraints are greatly over represented in vehicles with model years 1960-1989. This might be attributed to the lack of standard safety restraints in these older model vehicles. Vehicles with model years 2000-2012 indicate that the numbers involving restraints very significantly surpasses those involving drivers who did not use restraints. 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.

## Speed at Impact

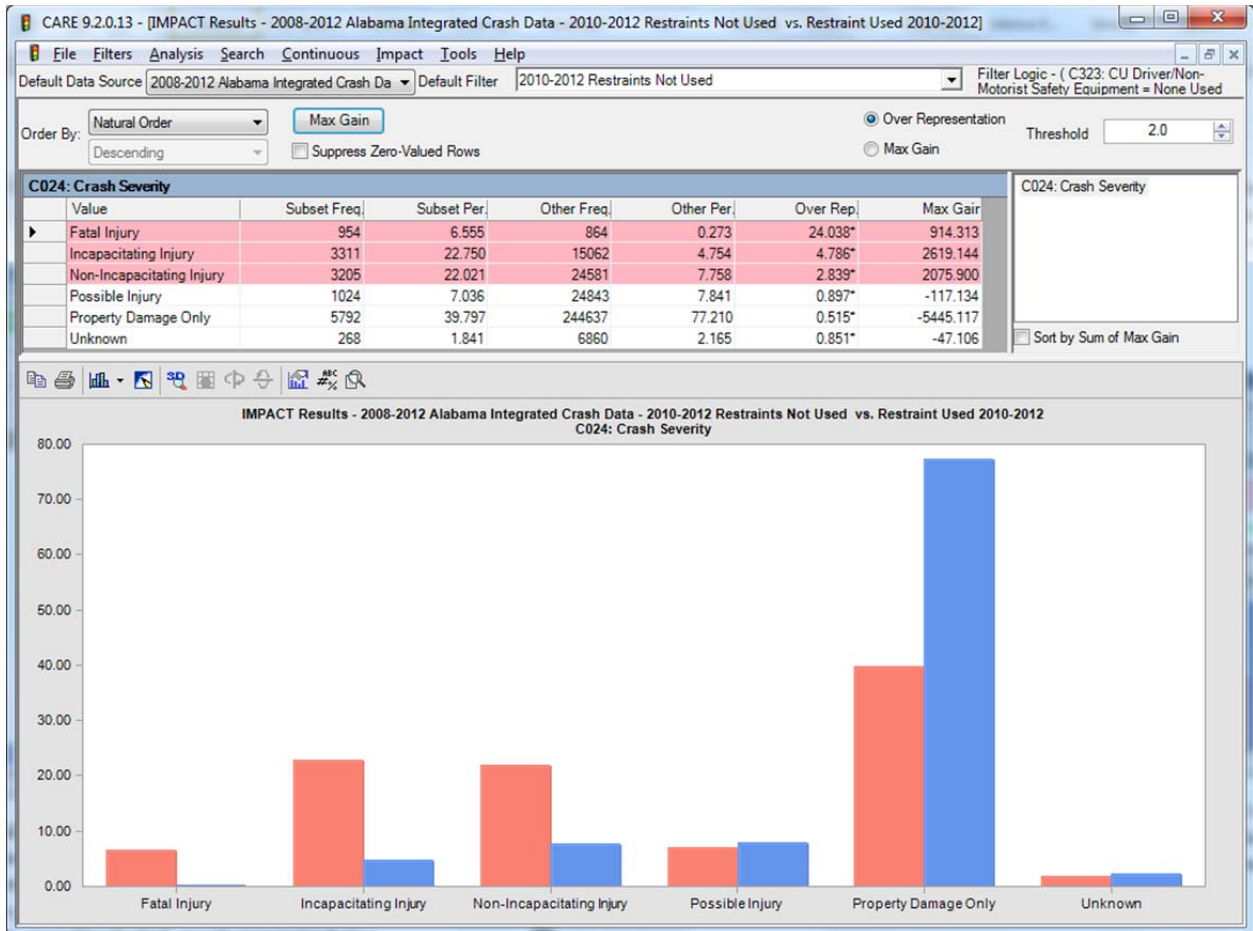


Speed at impact for crashes in which drivers failed to use restraints is over represented in the range of 46-100 MPH. This indicates that crashes in which restraints were not used consistently occur at higher speeds than crashes in which restraints were used by the causal driver. This confirms the rural-urban finding, in that speeds are generally higher in the rural areas. It also exacerbates the problem, resulting in greater severity caused by the high-speed, unrestrained situations. Severity factors are considered below.

## Severity Factors

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.

### Crash Severity



Fatal, incapacitating, and non-incapacitating injuries are all over represented in crashes that occurred without the use of restraints. This expected result quantifies the effects of the benefits of restraint use. Property damage only was far more common in crashes in which drivers did employ the use of restraints.



## Crash Severity Urban vs. Rural

CARE 9.2.0.13 - [Crosstab - 2008-2012 Alabama Integrated Crash Data - C024: Crash Severity vs. C011: Highway Classifications - Filter ...]

File Filters Analysis Search Continuous Crosstab Tools Help

Default Data Source: 2008-2012 Alabama Integrated Crash Da | Default Filter: 2010-2012 Restraints Not Used | Filter Logic - (C323: CU D)

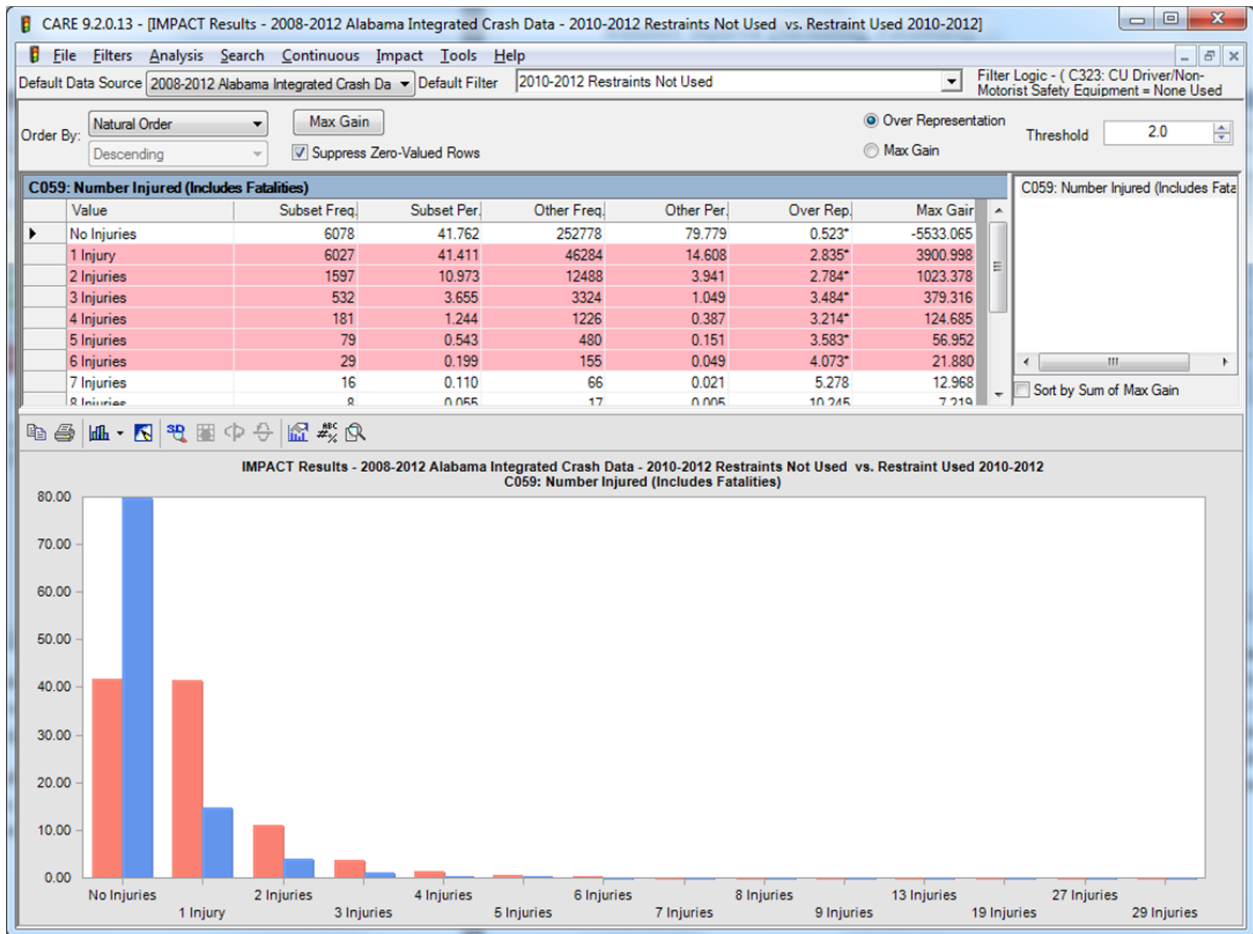
Select Cells: [ ] | Suppress Zero Values: None | Column: C024: Crash Severity ; Row: C011: Highway Classifications

	Fatal Injury	Incapacitating Injury	Non-Incapacitating Inju	Possible Injury	Property Damage Only	Unknown	TOTAL
Interstate	78 8.18%	210 6.34%	165 5.15%	73 7.13%	353 6.09%	11 4.10%	890 6.12%
Federal	157 16.46%	457 13.80%	449 14.01%	167 16.31%	723 12.48%	34 12.69%	1987 13.65%
State	222 23.27%	636 19.21%	564 17.60%	194 18.95%	1003 17.32%	56 20.90%	2675 18.38%
County	399 41.82%	1532 46.27%	1440 44.93%	274 26.76%	1996 34.46%	60 22.39%	5701 39.17%
Municipal	94 9.85%	449 13.56%	560 17.47%	308 30.08%	1614 27.87%	103 38.43%	3128 21.49%
Private Property	4 0.42%	27 0.82%	27 0.84%	8 0.78%	103 1.78%	4 1.49%	173 1.19%
Other	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%
TOTAL	954 6.55%	3311 22.75%	3205 22.02%	1024 7.04%	5792 39.80%	268 1.84%	14554 100.00%

Analysis of crash severity by highway classification for crashes in which the causal driver did not use restraints show that fatal injuries are over-represented on interstate and state roadways. Possible injuries were over-represented on municipal highways.

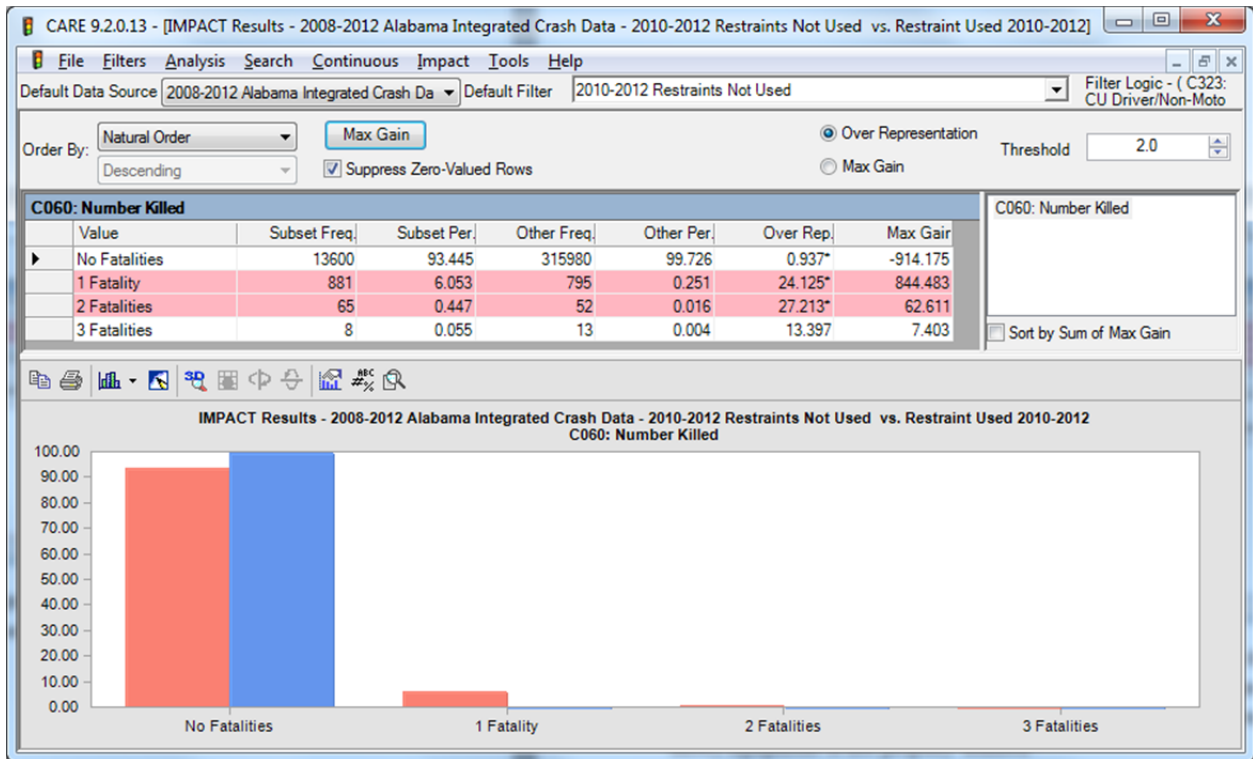
In a comparison crash severity in rural versus urban areas for causal drivers who did not use restraints, possible injuries were over-represented in urban areas. However, in rural areas, fatal injuries crashes with causal drivers who did not use restraints were significantly over-represented, comprising 70% of fatal injuries.

## Number Injured (Including Fatalities)



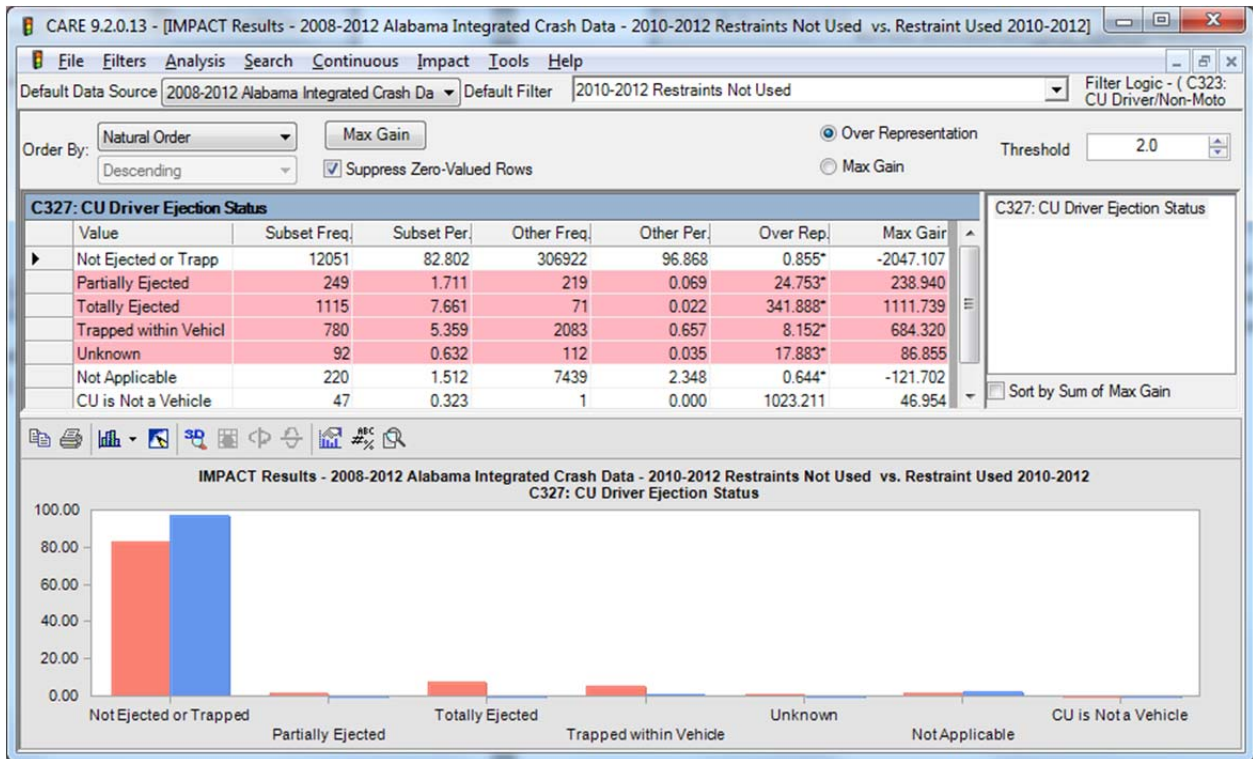
The proportion of injuries (including fatalities) in crashes in which no restraints were used is over represented from 1 to 6 injuries per crash. These results show quite plainly that crashes in which the causal driver was not restrained are much more severe in their effects to all passengers than when the causal driver is restrained. The over representation of multiple injuries in the causal vehicle might also indicate a tendency to travel with multiple individuals in the vehicle. This also demonstrates that the use of a seatbelt by the driver is an excellent proxy for seatbelt use in general in the corresponding vehicle.

## Number Killed



The proportion of fatalities in general as well as the proportion of multiple fatality crashes is dramatically over represented when restraints are not used.

## Driver Ejection Status



Ejection status of drivers is over represented in crashes in which the driver did not use restraints, indicating the cause for many fatalities. Total ejection is over represented by a factor of 341.8. Partial ejection, total ejection, or entrapments in the vehicle are expected in crashes in which safety equipment is not properly utilized.

## Ejection Status by Severity

CARE 9.2.0.13 - [Crosstab - 2008-2012 Alabama Integrated Crash Data - C024: Crash Severity vs. C327: CU Driver Ejection Status - Filter...]

File Filters Analysis Search Continuous Crosstab Tools Help

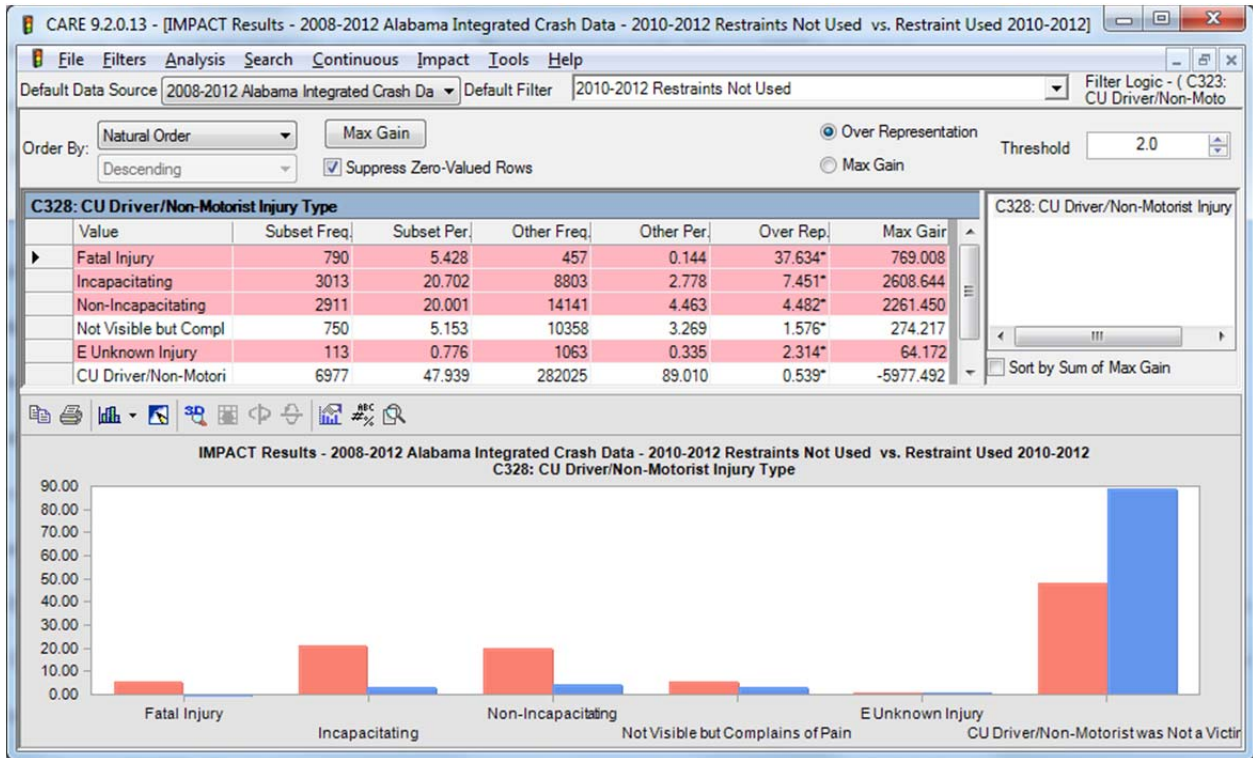
Default Data Source: 2008-2012 Alabama Integrated Crash Da | Default Filter: 2010-2012 Restraints Not Used | Filter Logic - (C323: CU D

Select Cells: [ ] | Suppress Zero Values: None | Column: C024: Crash Severity ; Row: C327: CU Driver Ejection Status

	Fatal Injury	Incapacitating Injury	Non-Incapacitating Inju	Possible Injury	Property Damage Only	Unknown	TOTAL
Not Ejected or Trapped	327 34.28%	2232 67.41%	2734 85.30%	945 92.29%	5584 96.41%	229 85.45%	12051 82.80%
Partially Ejected	93 9.75%	87 2.63%	46 1.44%	8 0.78%	11 0.19%	4 1.49%	249 1.71%
Totally Ejected	302 31.66%	544 16.43%	210 6.55%	26 2.54%	28 0.48%	5 1.87%	1115 7.66%
Trapped within Vehicle	214 22.43%	372 11.24%	150 4.68%	16 1.56%	18 0.31%	10 3.73%	780 5.36%
Unknown	1 0.10%	25 0.76%	16 0.50%	6 0.59%	35 0.60%	9 3.36%	92 0.63%
Not Applicable	8 0.84%	42 1.27%	35 1.09%	16 1.56%	111 1.92%	8 2.99%	220 1.51%
CU is Not a Vehicle	9 0.94%	9 0.27%	14 0.44%	7 0.68%	5 0.09%	3 1.12%	47 0.32%
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%
<b>TOTAL</b>	<b>954 6.55%</b>	<b>3311 22.75%</b>	<b>3205 22.02%</b>	<b>1024 7.04%</b>	<b>5792 39.80%</b>	<b>268 1.84%</b>	<b>14554 100.00%</b>

In evaluating crash severity by ejection status, data shows that fatal and incapacitating injuries were significantly over-represented 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.

## Driver Injury Type

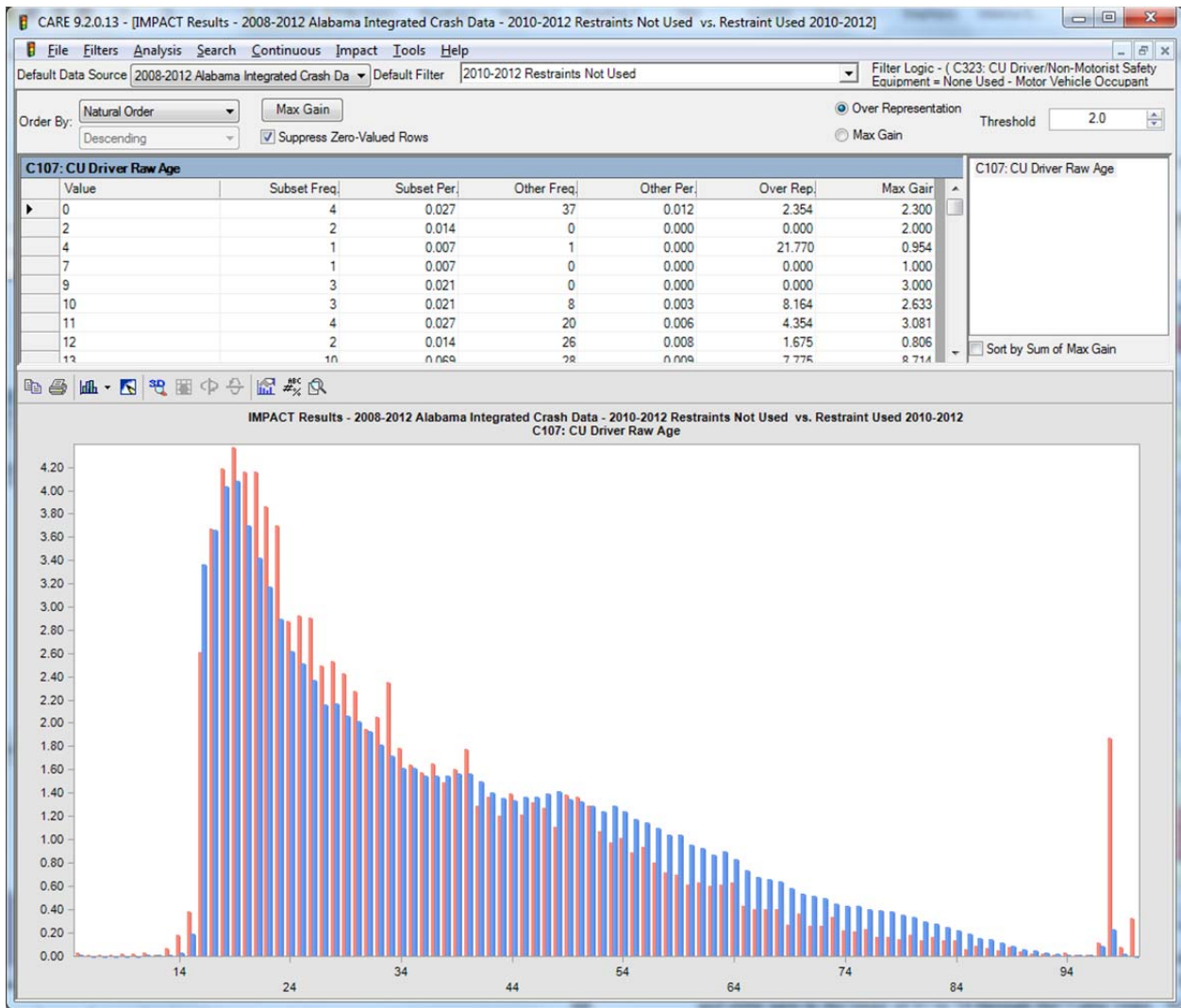


Various types of injuries, including fatalities, are consistently over represented in crashes where no restraints were used. Fatalities in these crashes are over represented by a factor of 37.63. In crashes in which safety restraints were used, drivers and non-motorists were far less likely to be injured.

# Driver Demographics

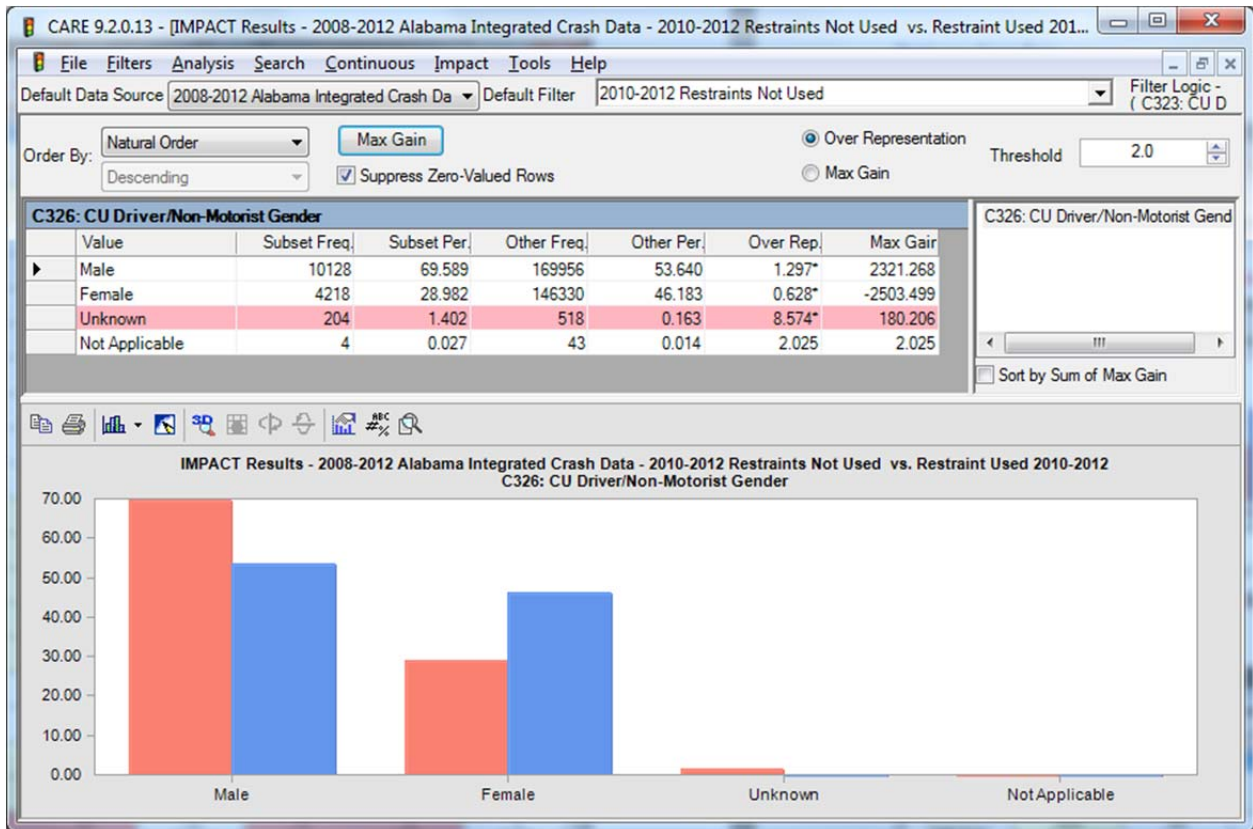
The study of driver demographics provides information about which gender or age groups are more likely to be involved in these crashes in which no restraints are used. Determination of over-representation can help to target the gender or age group that is more likely to be involved in this type of crash.

## Driver Age



Analysis of individual driver ages indicates that crashes involving no restraints are over represented in the years above the teen-drivers (age range 20-35). While it appears that teen-aged drivers are more likely to use safety equipment (perhaps due to the emphasis on it place during training), there is still a very large proportion that are unrestrained, and this problem is multiplied by their over-representation in crashes in general (see how they are at least twice the average of the other ages).

## Driver Gender



Males account for 69.58% of crashes in which restraints are not used, and they are over represented by a factor of 1.29. Since they do the majority of the driving, they become a clear target for restraint countermeasures.



## Driver Gender by Severity

CARE 9.2.0.13 - [Crosstab - 2008-2012 Alabama Integrated Crash Data - C109: CU Driver Gender vs. C024: Crash Severity - Filter = 201...

File Filters Analysis Search Continuous Crosstab Tools Help

Default Data Source: 2008-2012 Alabama Integrated Crash Da | Default Filter: 2010-2012 Restraints Not Used | Filter Logic - (C323: CU D

Select Cells: [ ] | Suppress Zero Values: None | Column: C109: CU Driver Gender ; Row: C024: Crash Severity

	Male	Female	Unknown	Not Applicable	CU is Not a Vehicle	CU is Unknown	TOTAL
Fatal Injury	721 7.14%	224 5.34%	0 0.00%	0 0.00%	9 19.15%	0 0.00%	954 6.55%
Incapacitating Injury	2334 23.12%	964 22.97%	3 1.44%	1 20.00%	9 19.15%	0 0.00%	3311 22.75%
Non-Incapacitating Inju	2227 22.06%	956 22.78%	7 3.37%	1 20.00%	14 29.79%	0 0.00%	3205 22.02%
Possible Injury	639 6.33%	369 8.79%	9 4.33%	0 0.00%	7 14.89%	0 0.00%	1024 7.04%
Property Damage Only	4007 39.69%	1601 38.15%	176 84.62%	3 60.00%	5 10.64%	0 0.00%	5792 39.80%
Unknown	169 1.67%	83 1.98%	13 6.25%	0 0.00%	3 6.38%	0 0.00%	268 1.84%
<b>TOTAL</b>	<b>10097 69.38%</b>	<b>4197 28.84%</b>	<b>208 1.43%</b>	<b>5 0.03%</b>	<b>47 0.32%</b>	<b>0 0.00%</b>	<b>14554 100.00%</b>

When driver gender by severity was studied, data indicates that “Possible Injuries” are over-represented for female drivers in this type of crash.

## Restraints Not Used in Rural Crashes – Times

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	TOTAL
12:00 Midnight to 12:59 AM	89 7.10%	30 3.02%	28 2.93%	23 2.23%	31 3.18%	31 2.52%	100 6.38%	332 4.15%
1:00 AM to 1:59 AM	73 5.83%	11 1.11%	24 2.51%	26 2.52%	23 2.36%	32 2.60%	77 4.91%	266 3.32%
2:00 AM to 2:59 AM	88 7.02%	20 2.02%	21 2.19%	18 1.75%	14 1.43%	34 2.77%	80 5.11%	275 3.44%
3:00 AM to 3:59 AM	71 5.67%	15 1.51%	17 1.78%	14 1.36%	16 1.64%	35 2.85%	85 5.42%	253 3.16%
4:00 AM to 4:59 AM	44 3.51%	14 1.41%	14 1.46%	23 2.23%	17 1.74%	30 2.44%	75 4.79%	217 2.71%
5:00 AM to 5:59 AM	48 3.83%	23 2.32%	32 3.34%	29 2.81%	31 3.18%	36 2.93%	53 3.38%	252 3.15%
6:00 AM to 6:59 AM	53 4.23%	28 2.82%	32 3.34%	38 3.69%	31 3.18%	40 3.25%	51 3.25%	273 3.41%
7:00 AM to 7:59 AM	33 2.63%	48 4.84%	61 6.37%	62 6.01%	49 5.02%	48 3.91%	30 1.91%	331 4.13%
8:00 AM to 8:59 AM	33 2.63%	29 2.92%	37 3.87%	39 3.78%	30 3.07%	31 2.52%	40 2.55%	239 2.99%
9:00 AM to 9:59 AM	23 1.84%	35 3.53%	43 4.49%	42 4.07%	28 2.87%	38 3.09%	37 2.36%	246 3.07%
10:00 AM to 10:59 AM	22 1.76%	41 4.13%	33 3.45%	39 3.78%	28 2.87%	35 2.85%	39 2.49%	237 2.96%
11:00 AM to 11:59 AM	35 2.79%	55 5.54%	25 2.61%	44 4.27%	30 3.07%	25 2.03%	48 3.06%	262 3.27%
12:00 Noon to 12:59 PM	39 3.11%	44 4.44%	31 3.24%	43 4.17%	45 4.61%	52 4.23%	43 2.74%	297 3.71%
1:00 PM to 1:59 PM	50 3.99%	57 5.75%	42 4.39%	40 3.88%	45 4.61%	47 3.82%	61 3.89%	342 4.27%
2:00 PM to 2:59 PM	51 4.07%	62 6.25%	42 4.39%	52 5.04%	48 4.92%	48 3.91%	69 4.40%	372 4.65%
3:00 PM to 3:59 PM	52 4.15%	57 5.75%	57 5.96%	58 5.63%	68 6.97%	74 6.02%	63 4.02%	429 5.36%
4:00 PM to 4:59 PM	69 5.51%	54 5.44%	64 6.69%	67 6.50%	64 6.56%	73 5.94%	58 3.70%	449 5.61%
5:00 PM to 5:59 PM	66 5.27%	71 7.16%	65 6.79%	71 6.89%	58 5.94%	74 6.02%	70 4.47%	475 5.93%
6:00 PM to 6:59 PM	68 5.43%	62 6.25%	54 5.64%	50 4.85%	53 5.43%	74 6.02%	94 6.00%	455 5.68%
7:00 PM to 7:59 PM	57 4.55%	53 5.34%	59 6.17%	65 6.30%	59 6.05%	70 5.70%	77 4.91%	440 5.50%
8:00 PM to 8:59 PM	50 3.99%	61 6.15%	47 4.91%	51 4.95%	53 5.43%	60 4.88%	91 5.81%	413 5.16%
9:00 PM to 9:59 PM	56 4.47%	46 4.64%	57 5.96%	49 4.75%	62 6.35%	82 6.67%	74 4.72%	426 5.32%
10:00 PM to 10:59 PM	52 4.15%	40 4.03%	39 4.08%	48 4.66%	44 4.51%	78 6.35%	76 4.85%	377 4.71%
11:00 PM to 11:59 PM	29 2.31%	33 3.33%	32 3.34%	40 3.88%	48 4.92%	81 6.59%	75 4.79%	338 4.22%
Unknown	2 0.16%	3 0.30%	1 0.10%	0 0.00%	1 0.10%	1 0.08%	1 0.06%	9 0.11%
TOTAL	1253 15.65%	992 12.39%	957 11.96%	1031 12.88%	976 12.19%	1229 15.35%	1567 19.58%	8005 100.00%

Crosstab analysis of time of day by day of the week for rural crashes in which restraints were not used helps target specific times in which officers should increase patrols in order to prevent these crashes.

## Restraints Not Used Causal Driver Age 16-20 - Times

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	TOTAL
12:00 Midnight to 12:59 AM	31 7.71%	7 2.13%	10 2.63%	11 2.91%	15 3.92%	6 1.41%	31 6.62%	111 4.01%
1:00 AM to 1:59 AM	22 5.47%	2 0.61%	8 2.11%	8 2.12%	10 2.61%	10 2.35%	29 6.20%	89 3.22%
2:00 AM to 2:59 AM	25 6.22%	9 2.74%	4 1.05%	8 2.12%	9 2.35%	4 0.94%	25 5.34%	84 3.04%
3:00 AM to 3:59 AM	20 4.98%	7 2.13%	6 1.58%	10 2.65%	7 1.83%	9 2.12%	27 5.77%	86 3.11%
4:00 AM to 4:59 AM	16 3.98%	4 1.22%	2 0.53%	3 0.79%	5 1.31%	12 2.82%	21 4.49%	63 2.28%
5:00 AM to 5:59 AM	14 3.48%	8 2.43%	11 2.89%	6 1.59%	8 2.09%	9 2.12%	12 2.56%	68 2.46%
6:00 AM to 6:59 AM	13 3.23%	6 1.82%	7 1.84%	6 1.59%	6 1.57%	8 1.88%	21 4.49%	67 2.42%
7:00 AM to 7:59 AM	8 1.99%	19 5.78%	29 7.63%	36 9.52%	31 8.09%	29 6.82%	9 1.92%	161 5.82%
8:00 AM to 8:59 AM	9 2.24%	7 2.13%	13 3.42%	11 2.91%	14 3.66%	2 0.47%	8 1.71%	64 2.31%
9:00 AM to 9:59 AM	8 1.99%	8 2.43%	11 2.89%	8 2.12%	8 2.09%	7 1.65%	10 2.14%	60 2.17%
10:00 AM to 10:59 AM	11 2.74%	14 4.26%	10 2.63%	12 3.17%	7 1.83%	10 2.35%	14 2.99%	78 2.82%
11:00 AM to 11:59 AM	14 3.48%	7 2.13%	12 3.16%	21 5.56%	11 2.87%	7 1.65%	14 2.99%	86 3.11%
12:00 Noon to 12:59 PM	16 3.98%	20 6.08%	20 5.26%	17 4.50%	13 3.39%	22 5.18%	17 3.63%	125 4.52%
1:00 PM to 1:59 PM	16 3.98%	14 4.26%	16 4.21%	15 3.97%	14 3.66%	12 2.82%	17 3.63%	104 3.76%
2:00 PM to 2:59 PM	18 4.48%	18 5.47%	14 3.68%	25 6.61%	22 5.74%	22 5.18%	17 3.63%	136 4.92%
3:00 PM to 3:59 PM	21 5.22%	34 10.33%	39 10.26%	31 8.20%	42 10.97%	43 10.12%	16 3.42%	226 8.17%
4:00 PM to 4:59 PM	20 4.98%	25 7.60%	28 7.37%	34 8.99%	24 6.27%	32 7.53%	21 4.49%	184 6.65%
5:00 PM to 5:59 PM	15 3.73%	23 6.99%	35 9.21%	21 5.56%	32 8.36%	25 5.88%	18 3.85%	169 6.11%
6:00 PM to 6:59 PM	25 6.22%	29 8.81%	26 6.84%	16 4.23%	23 6.01%	22 5.18%	29 6.20%	170 6.15%
7:00 PM to 7:59 PM	21 5.22%	13 3.95%	17 4.47%	24 6.35%	13 3.39%	15 3.53%	20 4.27%	123 4.45%
8:00 PM to 8:59 PM	15 3.73%	19 5.78%	21 5.53%	16 4.23%	20 5.22%	18 4.24%	18 3.85%	127 4.59%
9:00 PM to 9:59 PM	16 3.98%	12 3.65%	15 3.95%	15 3.97%	21 5.48%	28 6.59%	18 3.85%	125 4.52%
10:00 PM to 10:59 PM	15 3.73%	10 3.04%	13 3.42%	10 2.65%	18 4.70%	30 7.06%	25 5.34%	121 4.38%
11:00 PM to 11:59 PM	13 3.23%	14 4.26%	13 3.42%	13 3.44%	10 2.61%	43 10.12%	31 6.62%	137 4.95%
Unknown	0 0.00%	0 0.00%	0 0.00%	1 0.26%	0 0.00%	0 0.00%	0 0.00%	1 0.04%
<b>TOTAL</b>	<b>402</b> 14.54%	<b>329</b> 11.90%	<b>380</b> 13.74%	<b>378</b> 13.67%	<b>383</b> 13.85%	<b>425</b> 15.37%	<b>468</b> 16.93%	<b>2765</b> 100.00%

Crosstab analysis of specific times of day by day of the week for crashes in which the causal driver was between the ages of 16-20 also help target specifically problematic times in which younger drivers are more likely to get into crashes. The most consistently over-represented times include early morning hours on weekend days.

## Restraints Not Used Causal Driver Age 21-25 - Times

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	TOTAL
12:00 Midnight to 12:59 AM	24 5.93%	9 3.06%	12 3.76%	15 4.67%	10 3.26%	13 3.15%	30 6.11%	113 4.43%
1:00 AM to 1:59 AM	28 6.91%	7 2.38%	9 2.82%	6 1.87%	11 3.58%	18 4.36%	31 6.31%	110 4.31%
2:00 AM to 2:59 AM	48 11.85%	9 3.06%	9 2.82%	5 1.56%	5 1.63%	14 3.39%	37 7.54%	127 4.98%
3:00 AM to 3:59 AM	38 9.38%	6 2.04%	3 0.94%	9 2.80%	6 1.95%	19 4.60%	42 8.55%	123 4.82%
4:00 AM to 4:59 AM	21 5.19%	9 3.06%	4 1.25%	10 3.12%	4 1.30%	21 5.08%	27 5.50%	96 3.76%
5:00 AM to 5:59 AM	21 5.19%	8 2.72%	8 2.51%	4 1.25%	13 4.23%	10 2.42%	18 3.67%	82 3.22%
6:00 AM to 6:59 AM	16 3.95%	8 2.72%	9 2.82%	11 3.43%	9 2.93%	15 3.63%	17 3.46%	85 3.33%
7:00 AM to 7:59 AM	17 4.20%	9 3.06%	16 5.02%	15 4.67%	9 2.93%	12 2.91%	7 1.43%	85 3.33%
8:00 AM to 8:59 AM	7 1.73%	13 4.42%	14 4.39%	16 4.98%	11 3.58%	5 1.21%	15 3.05%	81 3.18%
9:00 AM to 9:59 AM	3 0.74%	10 3.40%	12 3.76%	12 3.74%	8 2.61%	11 2.66%	11 2.24%	67 2.63%
10:00 AM to 10:59 AM	5 1.23%	10 3.40%	13 4.08%	11 3.43%	10 3.26%	15 3.63%	10 2.04%	74 2.90%
11:00 AM to 11:59 AM	10 2.47%	12 4.08%	12 3.76%	11 3.43%	11 3.58%	10 2.42%	18 3.67%	84 3.29%
12:00 Noon to 12:59 PM	9 2.22%	10 3.40%	13 4.08%	22 6.85%	23 7.49%	19 4.60%	11 2.24%	107 4.20%
1:00 PM to 1:59 PM	9 2.22%	12 4.08%	12 3.76%	21 6.54%	21 6.84%	18 4.36%	11 2.24%	104 4.08%
2:00 PM to 2:59 PM	13 3.21%	18 6.12%	19 5.96%	12 3.74%	15 4.89%	17 4.12%	13 2.65%	107 4.20%
3:00 PM to 3:59 PM	14 3.46%	19 6.46%	20 6.27%	15 4.67%	20 6.51%	20 4.84%	19 3.87%	127 4.98%
4:00 PM to 4:59 PM	16 3.95%	20 6.80%	24 7.52%	19 5.92%	26 8.47%	25 6.05%	14 2.85%	144 5.65%
5:00 PM to 5:59 PM	17 4.20%	22 7.48%	19 5.96%	18 5.61%	24 7.82%	26 6.30%	20 4.07%	146 5.73%
6:00 PM to 6:59 PM	15 3.70%	16 5.44%	23 7.21%	24 7.48%	18 5.86%	15 3.63%	26 5.30%	137 5.37%
7:00 PM to 7:59 PM	15 3.70%	9 3.06%	16 5.02%	18 5.61%	11 3.58%	25 6.05%	17 3.46%	111 4.35%
8:00 PM to 8:59 PM	16 3.95%	17 5.78%	12 3.76%	6 1.87%	10 3.26%	18 4.36%	27 5.50%	106 4.16%
9:00 PM to 9:59 PM	15 3.70%	13 4.42%	15 4.70%	17 5.30%	14 4.56%	19 4.60%	21 4.28%	114 4.47%
10:00 PM to 10:59 PM	15 3.70%	12 4.08%	11 3.45%	12 3.74%	9 2.93%	28 6.78%	30 6.11%	117 4.59%
11:00 PM to 11:59 PM	12 2.96%	15 5.10%	13 4.08%	12 3.74%	9 2.93%	20 4.84%	19 3.87%	100 3.92%
Unknown	1 0.25%	1 0.34%	1 0.31%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 0.12%
<b>TOTAL</b>	<b>405</b> 15.88%	<b>294</b> 11.53%	<b>319</b> 12.51%	<b>321</b> 12.59%	<b>307</b> 12.04%	<b>413</b> 16.20%	<b>491</b> 19.25%	<b>2550</b> 100.00%

Crosstab analysis of specific times of day by day of the week for crashes in which the causal driver was between the ages of 21-25 also help target specifically problematic times in which drivers in a different age range are more likely to get into crashes. The most consistently over-represented times include early morning hours on weekend days and afternoon hours on weekdays.

## Summary and Conclusions

- Geographical Factors
  - Counties with the greatest over-representation factors for unrestrained driver crashes include Walker, Talladega, Escambia and Jackson.
  - The number of crashes involving drivers who use no restraints is greatly over represented in rural areas in comparison to the urban areas. The odds ratio for rural areas is well over twice what would be expected if rural and urban restraint use were the same.
  - The most over-represented (worse) areas are the rural county areas in Walker, Mobile, Cullman, and Escambia.
  - The most under-represented (best) cities are Montgomery, Birmingham, Mobile, and Tuscaloosa.
  - Crash incidents with no driver restraints being used are greatly over represented on county highways, with 2.5 times the expected number of crashes. County was the only roadway classification that was over-represented.
  - In the analysis of locale, crashes involving no restraints are most commonly over-represented in open country areas.
- Time Factors
  - The weekend days are the most over-represented 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, over-representation 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 7 PM time periods. Additional cross-tabulations were performed for specific target groups (see below).
- Crash Causal Factors
  - The over-representation factors indicate that certain risk-taking behaviors are often associated with crashes in which restraints are not used, including DUI, over the speed limit, running off the road, aggressive operation, and fatigue/sleep.
  - Crashes attributed to drivers who used no restraints are greatly over represented in vehicles with model years 1960-1989, which could be attributed to the lack of standard safety restraints in 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 over represented 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 over represented 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 over-represented on interstate and state roadways. “Possible Injuries” were over-represented on municipal highways.
  - Analysis of injuries shows that the proportion of injuries (including fatalities) in unrestrained driver crashes is over represented from 1 to 6 injuries per crash. Crashes without restraints are clearly causing much more severe injuries.
  - The proportion of fatalities in general as well as the proportion of multiple fatality crashes is dramatically over represented in crashes where the causal driver is unrestrained.
  - As expected, ejection of the unrestrained driver is over represented, indicating one major cause for many fatalities in which safety equipment is not properly utilized.
  - All types of injuries, including fatalities, are consistently over represented in crashes where no restraints were used.
- Driver Demographics
  - Analysis of individual driver ages indicates that crashes involving no restraints are over represented in drivers in and immediately above the teen driver classification (age range 16-35).
  - Male drivers account for a majority of crashes in which restraints are not used, and they are over represented by a factor of 1.29.
- 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 this 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 counterparts, they further compounding the problem at these times. The 16-20 would also reasonable be expected to be over-represented in the week-day after school hours in the proximity of their schools and after-school activities.

# Alabama Performance Report

## TRAFFIC SAFETY PERFORMANCE MEASURES

### C-1) Number of traffic fatalities (FARS)

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
969	848	862	893

The goal is to reduce total traffic fatalities from a 3-year average of 893 in 2012 to 875 in 2013.

Preliminary Outcome Status: Alabama did not meet their goal. Comparing the goal of 875 fatalities for 2013 with the 894 FARS fatalities for 2011, the goal was not met.

### C-2) Number of severe injuries in traffic crashes (State crash data files – sum of the two most severe categories – incapacitating and non-incapacitating.)

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
20,293	15,131	10,544	15,323

The goal is to reduce total severe injuries from a 3-year average of 15,323 in 2012 to 15,016 in 2013.

Preliminary Outcome Status: Alabama met and exceeded their goal. Comparing the goal of 15,016 severe injuries for 2013 with the 9,904 FARS severe injury number for 2011, the goal was met.

### C-3) Fatalities/VMT (FARS, FHWA)

#### Rural Fatalities/VMT

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
2.10	1.69	1.72	1.84

The goal is to reduce rural fatalities/VMT from a 3-year average of 1.84 in 2012 to 1.80 in 2013.

Preliminary Outcome Status: Alabama met their goal. Comparing the goal of 1.80 rural fatalities/VMT for 2013 with the FARS number of 1.72 for 2010, the goal was met.

Urban Fatalities/VMT

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
1.18	1.08	0.97	1.08

The goal is to reduce urban fatalities/VMT from a 3-year average of 1.08 in 2012 to 1.06 in 2013.

Preliminary Outcome Status: Alabama met their goal. Comparing the goal of 1.06 urban fatalities/VMT for 2013 with the FARS number of 0.97 for 2010, the goal was met.

Total Fatalities/VMT

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
1.63	1.38	1.34	1.45

The goal is to reduce total fatalities/VMT from a 3-year average of 1.45 in 2012 to 1.42 in 2013.

Preliminary Outcome Status: Alabama met their goal. Comparing the goal of 1.42 total fatalities/VMT for 2013 with the FARS number of 1.38 for 2011, the goal was met.

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

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
452	378	394	408

The goal is to reduce unrestrained passenger vehicle occupant fatalities, all seat positions, from a 3-year average of 408 in 2012 to 400 in 2013.

Preliminary Outcome Status: Alabama met and exceeded their goal. Comparing the goal of 400 unrestrained passenger vehicle occupant fatalities for 2013 with the FARS number of 382 for 2011, the goal was met.



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

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
314	267	279	287

The goal is to reduce fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS) from a 3-year average of 287 in 2012 to 281 in 2013.

Preliminary Outcome Status: Alabama met and exceeded their goal. Comparing the goal of 281 for 2013 with the 261 FARS number for 2011, the goal was met.

C-6) Number of speeding-related fatalities (FARS)

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
447	327	316	363

The goal is to reduce speeding-related fatalities (FARS) from a 3-year average of 363 in 2012 to 355 in 2013.

Preliminary Outcome Status: Alabama met and far exceeded their goal. Comparing the goal of 355 for the number of speeding-related fatalities for 2013 with the 298 FARS number for 2011, the goal was met.

C-7) Number of motorcyclist fatalities (FARS)

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
100	76	86	87

The goal is to reduce motorcyclist fatalities (FARS) from a 3-year average of 87 in 2012 to 85 in 2013.

Preliminary Outcome Status: Alabama did not meet their goal. Comparing the goal of 85 motorcyclist fatalities for 2013 with the FARS number of 98 for 2011, this goal was not met.

C-8) Number of un-helmeted motorcyclist fatalities (FARS)

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
15	7	5	9

The goal is to reduce un-helmeted motorcyclist fatalities (FARS) from a 3-year average of 9 in 2012 to 7 in 2013.

Preliminary Outcome Status: Alabama did not meet their goal. Comparing the goal of 7 un-helmeted motorcyclist fatalities for 2013 with the FARS number of 10 for 2011, this goal was not met.

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

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
163	140	140	148

The goal is to reduce the number of drivers age 20 or younger involved in fatal crashes (FARS) from a 3-year average of 148 in 2012 to 145 in 2013.

Preliminary Outcome Status: Alabama met their goal. Comparing the goal of 145 drivers age 20 or younger involved in fatal crashes for 2013 with the FARS number of 136 for 2011, the goal was met.

C-10) Number of pedestrian fatalities (FARS)

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>3-Year Average</u>
68	64	61	64

The goal is to reduce pedestrian fatalities (FARS) from a 3-year average of 64 in 2012 to 63 in 2013.

Preliminary Outcome Status: Alabama did not meet their goal. Comparing the goal of 63 pedestrian fatalities for 2013 with the FARS number of 79 for 2011, the goal was not met.

B-1) The observed seat belt use for passenger vehicles, front seat outboard occupants (survey).

<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>3-Year Average</u>
90.0%	91.4%	88.0%	89.8%

The goal is to increase the observed seat belt use for passenger vehicles, front seat outboard occupants (survey) from a 3-year average of 89.8% in 2012 to 90.5% in 2013.

Preliminary Outcome Status: Alabama did not meet their goal. Comparing the goal of 90.5% observed seat belt use for passenger vehicles, front seat outboard occupants for 2013 with the 2012 observed seat belt rate of 89.5%, the goal was not met.

## TRAFFIC SAFETY ACTIVITY MEASURES

Number of speeding citations

<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>3-Year Average</u>
50,693	49,003	61,054	53,583

The goal is to increase the number of speeding citations from a 3-year average of 53,583 in 2012 to 54,119 in 2013.

Preliminary Outcome Status: Alabama did not meet their goal. Comparing the goal of 54,119 for number of speeding citations for 2013 with the 2012 state number of 42,067 speeding citations, the goal was not met.

Number of DUI arrests

<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>3-Year Average</u>
3,374	5,108	4,867	4,450

The goal is to increase the number of DUI arrests from a 3-year average of 4,450 in 2012 to 4,495 in 2013.

Preliminary Outcome Status: Alabama did not meet their goal. Comparing the goal of 4,495 for number of DUI arrests for 2013 with the 2012 state number of 2,041 DUI arrests, the goal was not met.

Number of seat belt citations

<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>3-Year Average</u>
34,328	36,341	43,384	38,018

The goal is to increase the seat belt citations from a 3-year average of 38,018 in 2012 to 38,398 in 2013.

Preliminary Outcome Status: Alabama did not meet their goal. Comparing the goal of 38,398 for number of seat belt citations for 2013 with the 2012 state number of 30,425 seat belt citations, the goal was not met.

State of Alabama  
**Impaired Driving Plan**

**RESERVED**

to be Approved by  
Statewide Task Force  
and submitted by  
September 1, 2013