

Highway Safety Improvement Program Data Driven Decisions

Alabama Highway Safety Improvement Program 2013 Annual Report

Prepared by: AL

## Disclaimer

## Protection of Data from Discovery & Admission into Evidence

23 U.S.C. 148(h)(4) states "Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section [HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data."

23 U.S.C. 409 states "Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data."

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## **Executive Summary**

The Alabama Department of Transportation (ALDOT) through the Bureau of Transportation Planning and Modal Programs, Office of Safety Operations (OSO) is responsible for the administration of the Highway Safety Improvement Program (HSIP). The HSIP projects are consistent with the updated Alabama Strategic Highway Safety Plan (SHSP) 2nd Edition. The goal of Alabama's SHSP is the "Toward Zero Deaths" initiative. This initiative has a goal of reducing fatalities by 50% within a 20-year time period. The SHSP has five focus areas: Driver Behavior, Infrastructure Countermeasures, Legislative Initiatives, Traffic Safety Information Systems and Safety Stakeholders Community. Alabama's HSIP projects have focused on the areas of Infrastructure Countermeasures (construction), Driver Behavior (safety outreach campaigns), and Traffic Safety Information Systems (crash analysis). The Infrastructure Countermeasures Component of SHSP is administered through the OSO while the Safety Outreach and Crash Analysis components of SHSP is the responsibility of the Safety Management Section (SMS) in Bureau of Transportation Planning and Modal Programs.

Infrastructure Countermeasure HSIP projects are developed through a safety and operational analysis using crash data statistics, crash patterns, and benefit-cost engineering analysis. The projects have been more systemic in recent years directed toward specific needs identified through analysis such as Shoulder Widening Program, Interstate Median Barrier, and Horizontal Curve Signing. OSO collaborates with University Research Centers to develop data and analysis tools such as Roadway Improvement Safety Evaluation (RISE) and ALSAFE. RISE is a dashboard based tool that will provide ALDOT Division personnel with a method for selection of safety projects that will be cost effective. This tool will integrate safety needs into on-going maintenance projects. ALSAFE is a statewide planning level safety software tool which will aid ALDOT and Metropolitan Planning Organizations (MPOs).

The University Transportation Center for Alabama (UTCA) has a project underway to develop Safety Performance Factors (SPF) for state routes segments and intersections. The SPFs will be specific for Alabama by applying Highway Safety Manual (HSM).By using these tools, the project selection and evaluation process will be enhanced.

Safety Outreach initiatives through SMS are coordinated with the ALDOT's Media and Community Relations Bureau. Safety Campaigns such as "Click or Ticket it" and "Work Zone Safety" are handled through this Bureau. Local roads safety and enforcement programs are included in the HSIP. Local roads safety has been emphasized through the High Risk Rural Roads Program (HRRRP). The HRRRP projects has focused on upgrading signing for county roads and providing guardrail and safety end treatments for existing bridges. Local agencies and law enforcement representations participate on HSIP program development committees such as Road Safety Assessments (RSA). Also, the HSIP and Safety Operations manual is currently being update for use by local agencies and Division Personnel to aid in developing projects and applying for HSIP funds.

Crash data is maintained and accessed through the Critical Analysis Reporting Environment (CARE) maintained by the University Transportation Center for Alabama (UTCA). This data is critical in the development of HSIP.

Utilizing the output safety analysis projects and studies underway will improve the ability of the state and local agencies to analyze and prioritize safety needs and projects in a more efficient manner.

## Introduction

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.15, States are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. The format of this report is consistent with the HSIP MAP-21 Reporting Guidance dated February 13, 2013 and consists of four sections: program structure, progress in implementing HSIP projects, progress in achieving safety performance targets, and assessment of the effectiveness of the improvements.

## **Program Structure**

### **Program Administration**

How are Highway Safety Improvement Program funds allocated in a State?

Central

District

Other

#### Describe how local roads are addressed as part of Highway Safety Improvement Program.

Local Roads are address through HSIP by using crash analysis and safety and operations analysis. HSIP funds are available to local agencies for low cost safety improvements such as striping, markings, signage, traffic signal upgrades, etc. Project selections are based upon crash data analysis as well as benefit to cost analysis. As this process continues, there is more focus on the system wide or corridor approach rather than isolated or hotspot locations. ALDOT is currently developing a HSIP/Safety Operations Manual for project selection. This manual will provide aid for both local agencies and local ALDOT Division/District Personnel that focus on the eligibility and funding requirements for HSIP projects. Training and workshops will provided for those responsible for HSIP Program implementation.

The HRRRP addressed local county roads safety needs. HRRRP funds have been used to upgrade traffic striping, signage, bridge end safety treatments, as well as other low cost safety improvements. The projects were selected through an application process with a committee composed of FHWA, ALDOT, and local government representatives.

Alabama is proactive in the development of safety tools such as RISE, usRAP and the use of the HSM that will assist in the analysis process of local roads. These projects and studies are being conducted by various universities and consultants. ALDOT is currently developing a Road Safety Assessments (RSAs) program. RSA is a formal safety performance examination of existing and proposed roadways by an independent and multi-disciplinary team. This program will be applicable to both state and local government projects.

SMS provides cities, counties and other municipalities with yearly crash data summaries, high crash information locations, individual crash reports, and other crash-related information as needed. This crash data provides information to help in identify immediate or potential safety needs. This data is also helpful in the selection process for safety program funding.

State and local agency personnel are presented opportunities to receive crash analysis training for the Critical Analysis Reporting Environment (CARE) program. This provides an analytical process to assess crash data for trends and use as needed. CARE training is held several times per year.

Identify which internal partners are involved with Highway Safety Improvement Program planning.

Design

Planning

Maintenance

Operations

Governors Highway Safety Office

Other: Other-ALDOT County Transportation

Other: Other-ALDOT Computer Services

Other: Other-ALDOT-Maintenance Bureau

#### Briefly describe coordination with internal partners.

OSO coordinates the HSIP program with internal bureaus and sections within the Department to the extent possible. HSIP projects are consistent with the SHSP.

A safety program was developed between the OSO and ALDOT's Maintenance Bureau to implement the statewide shoulder widening projects on resurfacing projects. The program addresses road departure crashes along rural state routes. The program works in conjunction with the state's resurfacing program and provides two (2') feet shoulders along routes with shoulder scoring, where feasible. HSIP funds are utilized to implement the improvements. The ALDOT Maintenance Bureau administers the program and assists OSO in the identification of state routes that are being widened and provides input for preparation of the HSIP Report.

ALDOT's Maintenance Bureau is tasked with a program to upgrade signage to meet the current MUTCD (Manual on Uniform Traffic Control Devices). OSO is collaborating by identifying high crash horizontal curve locations for enhanced signage upgrades. HSIP funding will be used to implement for this program.

Similar partnerships were developed between the ALDOT's County Transportation Bureau and SMS/OSO to implement the High Risk Rural Roads Program (HRRRP). Since the beginning of the HRRRP, this partnership was essential in the development and implementation of the program. Areas of involvement range from the providing county engineers with crash data and analysis, to application development, review, and project selection. This "hands on" approach has been successful in addressing Alabama's local roads safety needs. SMS provides crash data for interdepartmental use, including Division Offices as well as, Metropolitan Planning Organizations, Cities, and Counties and others as needed.

#### Identify which external partners are involved with Highway Safety Improvement Program planning.

Metropolitan Planning Organizations

Governors Highway Safety Office

Local Government Association

Other: Other-County and Local Govt

Other: Other-Ala Dept of Public Health

Other: Other-Ala Dept of Public Safety

Other: Other-Ala Dept of Education

Identify any program administration practices used to implement the HSIP that have changed since the last reporting period.

Multi-disciplinary HSIP steering committee

Other: Other-Implementing HSIP/Safety Operations Manual

# Describe any other aspects of Highway Safety Improvement Program Administration on which you would like to elaborate.

The Office of Safety Operations' vision is to develop and provide tools, processes, and guidance necessary to reduce the number and severity of crashes along the public road system of Alabama. OSO provides infrastructure road safety initiatives and strategies and provides rapid review, response, and resolution to roadway safety concerns.

OSO administers the HSIP program by developing innovative and progressive sub-programs consistent with the Alabama Strategic Highway Safety Plan (SHSP). The sub-programs are planned by fiscal year with available HSIP funding. OSO works closely with the FHWA Division Office Safety personnel to expedite funds in a timely manner.

By taking a pro-active approach in administration and planning for HSIP projects and with upper management support, OSO manages HSIP funds in a more progressive manner.

## **Program Methodology**

## Select the programs that are administered under the HSIP.

Median Barrier	Intersection	Safe Corridor
Horizontal Curve	Bicycle Safety	Rural State Highways
Skid Hazard	Crash Data	Red Light Running Prevention
Roadway Departure	Low-Cost Spot Improvements	Sign Replacement And Improvement
⊠Local Safety	Pedestrian Safety	Right Angle Crash
Left Turn Crash	Shoulder Improvement	Segments
Other:		

Program:	Median Barrier
Date of Program Methodology:	7/29/2003

## What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes	Traffic	Median width
Fatal crashes only	⊠Volume	Horizontal curvature
Fatal and serious injury crashes only	Population	Functional classification
Other	Lane miles	Roadside features
	Other	Other-Use of HSM

methodology

What project identification methodology was used for this program?
Crash frequency
Expected crash frequency with EB adjustment
Equivalent property damage only (EPDO Crash frequency)
EPDO crash frequency with EB adjustment
Relative severity index
Crash rate
Critical rate
Level of service of safety (LOSS)
Excess expected crash frequency using SPFs
Excess expected crash frequency with the EB adjustment
Excess expected crash frequency using method of moments
Probability of specific crash types
Excess proportions of specific crash types
Other
Are local roads (non-state owned and operated) included or addressed in this program?
Yes
No

## How are highway safety improvement projects advanced for implementation?

Competitive application process

 $\boxtimes$  selection committee

## Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

50

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Incremental B/C

Ranking based on net benefit

Cost Effectiveness

 $\square$  Projects are ranked by priority 50

Program:	Intersection	
Date of Program Methodology:	1/2/2000	
What data types were used in the	e program methodology?	
Crashes	Exposure	Roadway
All crashes	Traffic	Median width
Fatal crashes only	⊠Volume	Horizontal curvature
Fatal and serious injury	Population	Functional classification

crashes only		
Other	Lane miles	Roadside features
	Other	Other
What project identification metho	odology was used for this program?	
Crash frequency		
Expected crash frequency with	EB adjustment	
Equivalent property damage on	ly (EPDO Crash frequency)	
EPDO crash frequency with EB a	adjustment	
Relative severity index		
Crash rate		
Critical rate		
Level of service of safety (LOSS)		
Excess expected crash frequency using SPFs		
Excess expected crash frequency with the EB adjustment		
Excess expected crash frequency using method of moments		
Probability of specific crash type	es	
Excess proportions of specific c	rash types	
Other		
Are local roads (non-state owned	and operated) included or address	ed in this program?
⊠Yes		

No

If yes, are local road projects identified using the same methodology as state roads?

Yes

No

## How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other-Division selection of Candidates

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C	1
Available funding	2
Incremental B/C	
Ranking based on net benefit	
Cost Effectiveness	

Program: Horizontal Curve

Date of Program Methodology: 1/2/2012

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes	Traffic	Median width
Fatal crashes only	⊠Volume	Horizontal curvature
Fatal and serious injury crashes only	Population	Functional classification
Other	Lane miles	Roadside features
	Other	Other

#### What project identification methodology was used for this program?

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

Are local roads (non-state owned and operated) included or addressed in this program?

## Yes

No

If yes, are local road projects identified using the same methodology as state roads?

⊠Yes

No

#### How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other-Program is being developed

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Incremental B/C

Ranking based on net benefit

Cost Effectiveness

 $\square$  Methodology being developed 100

Program:	Rural State Highways	
Date of Program Methodology:	1/2/2006	
What data types were used in the	e program methodology?	
Crashes	Exposure	Roadway
All crashes	Traffic	Median width
Fatal crashes only	⊠Volume	Horizontal curvature
⊠Fatal and serious injury crashes only	Population	Functional classification
Other	Lane miles	Roadside features

Ully		
r	Lane miles	Roadside features
	Other	Other-No of lanes

## What project identification methodology was used for this program?

Crash frequency
Expected crash frequency with EB adjustment
Equivalent property damage only (EPDO Crash frequency)
EPDO crash frequency with EB adjustment
Relative severity index
Crash rate
Critical rate
Level of service of safety (LOSS)
Excess expected crash frequency using SPFs
Excess expected crash frequency with the EB adjustment
Excess expected crash frequency using method of moments
Probability of specific crash types

Excess proportions of specific crash types

Other

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

No

How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C	
Available funding	50
Incremental B/C	
Ranking based on net benefit	
Cost Effectiveness	50

Program:	Skid Hazard			
Date of Program Methodology:	1/1/2013			
What data types were used in th	e program methodology?			
Crashes	Exposure	Roadway		
All crashes	Traffic	Median width		
Fatal crashes only	⊠Volume	Horizontal curvature		
Fatal and serious injury crashes only	Population	Functional classification		
Other	⊠Lane miles	Roadside features		
	Other	Other		
What project identification methodology was used for this program?				
Crash frequency				
Expected crash frequency with EB adjustment				
Equivalent property damage only (EPDO Crash frequency)				
EPDO crash frequency with EB adjustment				
Relative severity index				

Crash rate

Critical rate

Level of service of safety (LOSS)

Excess expected crash frequency using SPFs

Excess expected crash frequency with the EB adjustment

Excess expected crash frequency using method of moments

Probability of specific crash types

Excess proportions of specific crash types

Other

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

No

## How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other-Program is being developed

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C	
Available funding	50
Incremental B/C	
Ranking based on net benefit	
Cost Effectiveness	50

Program:	Crash Data		
Date of Program Methodology:	1/1/1996		
What data types were used in th	e program methodology?		
Crashes	Exposure	Roadway	
All crashes	Traffic	Median width	
Fatal crashes only	⊠Volume	Horizontal curvature	
Fatal and serious injury crashes only	Population	Functional classification	
Other	Lane miles	Roadside features	
	Other	Other	
What project identification meth	nodology was used for this program	?	
Crash frequency			
Expected crash frequency with EB adjustment			
Equivalent property damage only (EPDO Crash frequency)			
EPDO crash frequency with EB adjustment			
Relative severity index			
Crash rate			
Critical rate			
Level of service of safety (LOSS)			
Excess expected crash frequency using SPFs			

Excess expected crash frequency with the EB adjustment

Excess expected crash frequency using method of moments

Probability of specific crash types

Excess proportions of specific crash types

Other

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

No

If yes, are local road projects identified using the same methodology as state roads?

Yes

No

#### How are highway safety improvement projects advanced for implementation?

Competitive application process

selection committee

Other-Use of the CARE system

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Incremental B/C

Ranking based on net benefit

Cost Effectiveness

Data Available Statewide 100

Program:	Roadway Departure
Date of Program Methodology:	1/2/2006

## What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes	Traffic	Median width
Fatal crashes only	⊠Volume	Horizontal curvature
Fatal and serious injury crashes only	Population	Functional classification
Other	⊠Lane miles	Roadside features
	Other	Other-Existing Shoulder if applicable

## What project identification methodology was used for this program?

## Crash frequency

Expected crash frequency with EB adjustment

Equivalent property damage only (EPDO Crash frequency)

EPDO crash frequency with EB adjustment

Relative severity index

Crash rate

Critical rate

Level of service of safety (LOSS)

Excess expected crash frequency using SPFs

Excess expected crash frequency with the EB adjustment

Excess expected crash frequency using method of moments

Probability of specific crash types

Excess proportions of specific crash types

Other

Are local roads (non-state owned and operated) included or addressed in this program?

l Yes
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No

#### How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other-In conjunction with Resurfacing Maintenance Program

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C			
Available funding	50		
Incremental B/C			
Ranking based on net benefit			
Cost Effectiveness	50		

## Low-Cost Spot Improvements

Date of Program Methodology: 1/1/1993

## What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes	Traffic	Median width
Fatal crashes only	⊠Volume	Horizontal curvature
Fatal and serious injury crashes only	Population	Functional classification
Other	Lane miles	Roadside features
	Other	Other

## What project identification methodology was used for this program?

Expected crash frequency with EB adjustment

Equivalent property damage only (EPDO Crash frequency)

EPDO crash frequency with EB adjustment

Relative severity index

Crash rate

Critical rate

Level of service of safety (LOSS)

Excess expected crash frequency using SPFs

Excess expected crash frequency with the EB adjustment

Excess expected crash frequency using method of moments

Probability of specific crash types

Excess proportions of specific crash types

Other

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

No

If yes, are local road projects identified using the same methodology as state roads?

Yes

No

How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

## Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C	50
Available funding	50

Incremental B/C

Ranking based on net benefit

Cost Effectiveness

Program:	Sign Replacement And Improvement			
Date of Program Methodology:	1/1/2006			
What data types were used in the program methodology?				
Crashes	Exposure	Roadway		
All crashes	Traffic	Median width		
Fatal crashes only	⊠Volume	Horizontal curvature		
Fatal and serious injury crashes only	Population	Functional classification		
Other	Lane miles	Roadside features		
	Other	Other		

## What project identification methodology was used for this program?

Crash frequency

	Expected	crash	frequency	with	EΒ	adjustment
--	----------	-------	-----------	------	----	------------

Equivalent property damage only (EPDO Crash frequency)

EPDO crash frequency with EB adjustment

Relative severity index

Crash rate

Critical rate

Level of service of safety (LOSS)

Excess expected crash frequency using SPFs

Excess expected crash frequency with the EB adjustment

Excess expected crash frequency using method of moments

Probability of specific crash types

Excess proportions of specific crash types

Other

#### Are local roads (non-state owned and operated) included or addressed in this program?

Yes

No

If yes, are local road projects identified using the same methodology as state roads?

Yes

No

#### How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other-HRRRP

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

1

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Ranking based on net benefit

Cost Effectiveness 2

Program: Local Safety Date of Program Methodology: 1/1/2006

#### What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes	Traffic	Median width
Fatal crashes only	⊠Volume	Horizontal curvature
Fatal and serious injury crashes only	Population	Functional classification
Other	Lane miles	Roadside features

Other

What project identification methodology was used for this program?         Crash frequency         Expected crash frequency with EB adjustment         Equivalent property damage only (EPDO Crash frequency)         EPDO crash frequency with EB adjustment         Relative severity index
Expected crash frequency with EB adjustment Equivalent property damage only (EPDO Crash frequency) EPDO crash frequency with EB adjustment
Equivalent property damage only (EPDO Crash frequency)
EPDO crash frequency with EB adjustment
Relative severity index
Crash rate
Critical rate
Level of service of safety (LOSS)
Excess expected crash frequency using SPFs
Excess expected crash frequency with the EB adjustment
Excess expected crash frequency using method of moments
Probability of specific crash types
Excess proportions of specific crash types
Other
Are local roads (non-state owned and operated) included or addressed in this program?
Yes
No
If yes, are local road projects identified using the same methodology as state roads?
Yes

No

## How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C
----------------------

Available funding 50
Incremental B/C
Ranking based on net benefit
Cost Effectiveness 50

Program:	Shoulder Improvement			
Date of Program Methodology:	1/2/2006			
What data types were used in the program methodology?				

Crashes

Exposure

Roadway

All crashes

Traffic

Median width

28

## Highway Safety Improvement Program

Fatal crashes only	⊠Volume	Horizontal curvature
Fatal and serious injury crashes only	Population	Functional classification
Other	⊠Lane miles	Roadside features
	Other	Other

## What project identification methodology was used for this program?

Crash frequency
Expected crash frequency with EB adjustment
Equivalent property damage only (EPDO Crash frequency)
EPDO crash frequency with EB adjustment
Relative severity index
Crash rate
Critical rate
Level of service of safety (LOSS)
Excess expected crash frequency using SPFs
Excess expected crash frequency with the EB adjustment

Excess expected crash frequency using method of moments

- Probability of specific crash types
- Excess proportions of specific crash types
- Other

## Are local roads (non-state owned and operated) included or addressed in this program?

Yes

No

#### How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C	2
----------------------	---

Available funding
Incremental B/C
Ranking based on net benefit

Cost Effectiveness 2

Program:	Segments
Date of Program Methodology:	1/3/1993

#### What data types were used in the program methodology?

Crashes

Exposure

1

Roadway

All crashes

Traffic

Median width

30

## Highway Safety Improvement Program

Fatal crashes only	⊠Volume	Horizontal curvature
Fatal and serious injury crashes only	Population	Functional classification
Other	Lane miles	Roadside features
	Other	Other

## What project identification methodology was used for this program?

Crash frequency
Expected crash frequency with EB adjustment
Equivalent property damage only (EPDO Crash frequency)
EPDO crash frequency with EB adjustment
Relative severity index
Crash rate
Critical rate
Level of service of safety (LOSS)
Excess expected crash frequency using SPFs
Excess expected crash frequency with the EB adjustment
Excess expected crash frequency using method of moments
Probability of specific crash types
Excess proportions of specific crash types
Other

## Are local roads (non-state owned and operated) included or addressed in this program?

Yes

No

If yes, are local road projects identified using the same methodology as state roads?

Yes

No

#### How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other-Division selection of Candidates

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding 50

Cost Effectiveness 50

#### What proportion of highway safety improvement program funds address systemic improvements?

85

# Highway safety improvment program funds are used to address which of the following systemic improvments?

Cable Median Barriers	Rumble Strips
Traffic Control Device Rehabilitation	Pavement/Shoulder Widening
Install/Improve Signing	Install/Improve Pavement Marking and/or Delineation
Upgrade Guard Rails	Clear Zone Improvements
Safety Edge	Install/Improve Lighting
Add/Upgrade/Modify/Remove Traffic Signal	⊠Other Other-Horizontal Curve Signing and Marking Program

#### What process is used to identify potential countermeasures?

Engineering Study

Road Safety Assessment

Other:

Identify any program methodology practices used to implement the HSIP that have changed since the last reporting period.

Highway Safety Manual

Road Safety audits

Systemic Approach

Other:

Describe any other aspects of the Highway Safety Improvement Program methodology on which you would like to elaborate.

The Office of Safety Operations' methodology for development of the HSIP Programs is directly related to the correlation with the goals and elements in the Alabama Strategic Highway Safety Plan. Program elements are focused toward reducing the number of fatalities and severe injuries in Alabama. A sample list of projects that are currently underway are as follows:

- 2' Shoulder Widening Program on the State Highway System
- Interstate Median Barrier Program
- Roadway Safety Assessments/Audits (RSA) Manual
- Traffic Signal Inventory
- Speed Management Program Evaluation
- Roundabout Manual and Conceptual Design on Three State Routes Intersections
- Roadway Improvement Safety Evaluation (RISE) Program with site identification(pending)
- First Responders related to EMS
- Integrating Safety and Operations into ALDOT processes
- ALSAFE (Alabama Planning Level Safety Tool)
- usRAP(Road Assessment Program)
- Work Zone Mobility and Safety Assessment
- Wet-Weather Safety Analysis and Site Identification Methodology
- Horizontal Curve Resigning Program (with ALDOT Maintenance Bureau)
- Implementing Highway Safety Manual Procedures into overall program analysis

A table is attached detailing additional safety programs administered by ALDOT.

# **Progress in Implementing Projects**

#### **Funds Programmed**

Reporting period for Highway Safety Improvement Program funding.

Calendar Year

State Fiscal Year

Federal Fiscal Year

Enter the programmed and obligated funding for each applicable funding category.

Funding Category	Programmed*		Obligated	
HSIP (Section 148)	12245316	19 %	23091700	16 %
HRRRP (SAFETEA-LU)	0	0 %	1388102	1 %
HRRR Special Rule				
Penalty Transfer - Section 154				
Penalty Transfer – Section 164				
Incentive Grants - Section 163				
Incentive Grants (Section 406)				
Other Federal-aid Funds (i.e. STP, NHPP)	50619167	81 %	116305902	83 %

State and Local Funds				
Totals	62864483	100%	140785704	100%

How much funding is programmed to local (non-state owned and maintained) safety projects?

5 %

How much funding is obligated to local safety projects?

5 %

How much funding is programmed to non-infrastructure safety projects?

3 %

How much funding is obligated to non-infrastructure safety projects?

3 %

How much funding was transferred in to the HSIP from other core program areas during the reporting period?

#### 0 %

How much funding was transferred out of the HSIP to other core program areas during the reporting period?

10 %

Discuss impediments to obligating Highway Safety Improvement Program funds and plans to overcome this in the future.

None

Describe any other aspects of the general Highway Safety Improvement Program implementation progress on which you would like to elaborate.

None

#### **General Listing of Projects**

List each highway safety improvement project obligated during the reporting period.

Project	Improvement Category	Outpu t	HSIP Cost	Total Cost	Fundin g Categor	Functiona I Classificat	AAD T	Spee d	Roadwa y Owners	Relationship SHSP	o to
					у	ion			hip	Emphasis Area	Strate gy
SR-68 FROM MP 47.2 TO 52.926, CHEROKEE COUNTY	Shoulder treatments Widen shoulder - paved or other	6 Miles	30693 8	180552 0	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Minor Arterial	139 8	55	State Highway Agency	Keeping vehicles in the roadway	
SR-1(US 431) FROM MP 337.49 TO 341.19, MADISON COUNTY	Shoulder treatments Widen shoulder - paved or other	4 Miles	42137 7	149397 4	Other Federal -aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	282 02	60	State Highway Agency	Keeping vehicles in the roadway	
SR-1(US 72) FROM MP 86.042 TO 89.51, MADISON	Shoulder treatments Widen shoulder - paved or other	3 Miles	10339 8	172330 6	Other Federal -aid Funds (i.e.	Urban Principal Arterial - Other	325 73	55	State Highway Agency	Keeping vehicles in the roadway	

COUNTY					STP, NHPP)						
SR-3(US 31) FROM MP 320.73 TO 325.43, CULLMAN COUNTY	Shoulder treatments Widen shoulder - paved or other	5 Miles	38464 8	356155 4	Other Federal -aid Funds (i.e. STP, NHPP)	MULTIPLE CLASSES	150 36	55	State Highway Agency	Keeping vehicles in the roadway	
SR-25(US-411) FROM MP 174.33 TO 183.89, ST. CLAIR COUNTY	Shoulder treatments Widen shoulder - paved or other	10 Miles	59431 8	349599 1	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Minor Arterial	942 0	55	State Highway Agency	Keeping vehicles in the roadway	
SR-2(US-72) FROM MP 59.957 TO 72.234, LIMESTONE COUNTY	Shoulder treatments Widen shoulder - paved or other	13 Miles	81364 4	753373 7	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Principal Arterial - Other	114 58	60	State Highway Agency	Keeping vehicles in the roadway	
SR-67 FROM MP 35.57 TO 38.982, MORGAN	Shoulder treatments Widen shoulder - paved or other	3 Miles	30274 9	200495 9	Other Federal -aid Funds	Multiple Class	274 20	55	State Highway Agency	Keeping vehicles in the	

COUNTY SR-5(US-11) FROM MP 124 TO 129.32, JEFFERSON COUNTY	Shoulder treatments Widen shoulder - paved or other	5 Miles	10448 2	261603 9	(i.e. STP, NHPP) Other Federal -aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	213 48	40	State Highway Agency	roadway Keeping vehicles in the roadway	
SR-3(US-31) FROM MP 294.17 TO 298.79, JEFFERSON COUNTY	Shoulder treatments Widen shoulder - paved or other	5 Miles	27549 2	183661 1	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Minor Arterial	112 30	50	State Highway Agency	Keeping vehicles in the roadway	
SR-18 FROM MP 52.49 TO 61.59 AND SR- 69 FROM MP 188.348 TO 189.445, WALKER COUNTY	Shoulder treatments Widen shoulder - paved or other	10 Miles	49048 5	233356 43	Other Federal -aid Funds (i.e. STP, NHPP)	Multiple Classes	124 8	55	State Highway Agency	Keeping vehicles in the roadway	
SR-75 FROM MP 1.93 TO	Shoulder treatments Widen shoulder - paved	3 Miles	13344	190632	Other Federal	Urban Principal	301	45	State Highway	Keeping vehicles in	

4.93, JEFFERSON COUNTY	or other		3	5	-aid Funds (i.e. STP, NHPP)	Arterial - Other	60		Agency	the roadway	
SR-119 FROM 27.975 TO 31.753, SHELBY COUNTY	Shoulder treatments Widen shoulder - paved or other	4 Miles	18170 5	151421 0	Other Federal -aid Funds (i.e. STP, NHPP)	Multiple Classes	172 25	55	State Highway Agency	Keeping vehicles in the roadway	
CR- 39(NUCKOLS ROAD), RUSSELL COUNTY	Roadside Barrier end treatments (crash cushions, terminals)	0 Miles	25652	25652	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	55	County Highway Agency	Minimizing the consequen ces of leaving the road	
SR-22 FROM MP 95.972 TO 104.05, COOSA COUNTY	Shoulder treatments Widen shoulder - paved or other	8 Miles	41184 9	411849 4	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Minor Arterial	157 1	55	State Highway Agency	Keeping vehicles in the roadway	
SR-14 FROM MP 208.147	Shoulder treatments Widen shoulder - paved	10	12345	561157	Other Federal	Multiple	674	55	State Highway	Keeping vehicles in	

TO 218.29, LEE COUNTY	or other	Miles	46	3	-aid Funds (i.e. STP, NHPP)	Classes	5		Agency	the roadway	
SR-77 FROM MP 43.88 TO 51.523, CLAY COUNTY	Shoulder treatments Widen shoulder - paved or other	8 Miles	48108 1	320720 4	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Minor Arterial	245 6	55	State Highway Agency	Keeping vehicles in the roadway	
SR-183 FROM MP 0 TO 16.038, PERRY COUNTY	Shoulder treatments Widen shoulder - paved or other	16 Miles	54566 6	320980 2	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	107 7	55	State Highway Agency	Keeping vehicles in the roadway	
SR-14 FROM MP 9.2 TO 19.261, PICKENS COUNTY	Shoulder treatments Widen shoulder - paved or other	10 Miles	62027 3	413515 2	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Minor Arterial	269 8	55	State Highway Agency	Keeping vehicles in the roadway	

SR-171 FROM	Shoulder treatments	10	95490	353557	Other	Rural	242	55	State	Keeping	
								55			
MP 13.6 TO	Widen shoulder - paved	Miles	1	0	Federal	Minor	0		Highway	vehicles in	
,	or other				-aid	Arterial			Agency	the	
TUSCALOOSA					Funds					roadway	
COUNTY					(i.e.						
					STP,						
					NHPP)						
SR-191 FROM	Shoulder treatments	8 Miles	75675	378376	Other	Rural	273	55	State	Keeping	
MP 6 TO 14,	Widen shoulder - paved		4	8	Federal	Minor	7		Highway	vehicles in	
	or other				-aid	Arterial			Agency	the	
COUNTY					Funds	7.1.001101			1.80.107	roadway	
coontri					(i.e.					roddwdy	
					-						
					STP,						
					NHPP)						
SR-6(US-82)	Shoulder treatments	8 Miles	33957	212236	Other	Rural	299	55	State	Keeping	
FROM MP	Widen shoulder - paved		9	7	Federal	Principal	0		Highway	vehicles in	
98.874 TO	or other				-aid	Arterial -			Agency	the	
107.197,					Funds	Other				roadway	
Chilton					(i.e.						
County					STP,						
					NHPP)						
					,						
SR-69(US-82)	Intersection geometry	1	60737	607377	HSIP	Urban	297	55	State	Keeping	
AT CR-	Auxiliary lanes - add left-	Numb	7		(Sectio	Principal	50		Highway	vehicles in	
65(BEAR	turn lane	ers			n 148)	Arterial -			Agency	the	
CREEK RD),						Other				roadway	
TUSCALOOSA										,	
COUNTY											

SR-216 AT CR- 60(ROCKHOU SE RD/WOODLA ND LAKE), TUSCALOOSA COUNTY	Intersection geometry Intersection geometrics - miscellaneous/other/uns pecified	1 Numb ers	56774 5	567745	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	735 0	45	State Highway Agency	Increasing driver safety awareness	
SR-138 FROM MP 0 TO 0.724, MACON COUNTY	Shoulder treatments Widen shoulder - paved or other	1 Numb ers	17913 4	559795	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	930 9	55	State Highway Agency	Keeping vehicles in the roadway	
SR-94 FROM 0.50 TO 6, MONTGOMER Y COUNTY	Shoulder treatments Widen shoulder - paved or other	6 Miles	68315 0	284645 8	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	104 3	55	State Highway Agency	Keeping vehicles in the roadway	
SR-8 FROM MP 87.876 TO 94.189, DALLAS COUNTY	Shoulder treatments Widen shoulder - paved or other	6 Miles	12949 99	129499 9	HSIP (Sectio n 148)	Multiple Classes	930 9	55	State Highway Agency	Keeping vehicles in the roadway	

SR-8(US-80) FROM MP 95.06 TO 99.26, DALLAS COUNTY	Shoulder treatments Widen shoulder - paved or other	4 Miles	95795 0	399145 7	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Principal Arterial - Other	829 3	65	State Highway Agency	Keeping vehicles in the roadway	
SR-14 FROM MP 108.171 TO 114.198, DALLAS COUNTY	Shoulder treatments Widen shoulder - paved or other	6 Miles	<b>78647</b> 5	262158 4	Other Federal -aid Funds (i.e. STP, NHPP)	Multiple Classes	270 2	55	State Highway Agency	Keeping vehicles in the roadway	
SR-6 (US-82) FROM MP 199.75 TO 205.90, BULLOCK COUNTY	Shoulder treatments Widen shoulder - paved or other	6 Miles	10205 71	566983 9	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Minor Arterial	208 2	55	State Highway Agency	Keeping vehicles in the roadway	
SR-10 FROM MP 193.735 TO 201.421, BARBOUR COUNTY	Shoulder treatments Widen shoulder - paved or other	8 Miles	70855 5	308067 6	Other Federal -aid Funds (i.e. STP,	Rural Minor Arterial	208 2	55	State Highway Agency	Keeping vehicles in the roadway	

					NHPP)						
SR-192 FROM MP 1.966 TO 6.662, COFFEE COUNTY	Shoulder treatments Widen shoulder - paved or other	5 Miles	14013 5	233355 85	Other Federal -aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	953 4	55	State Highway Agency	Keeping vehicles in the roadway	
SR-1(US 431) FROM MP 67 TO 72, BARBOUR COUNTY	Shoulder treatments Widen shoulder - paved or other	5 Miles	80849 5	475585 1	Other Federal -aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	214 73	65	State Highway Agency	Keeping vehicles in the roadway	
SR-134 FROM MP 62.125 TO 68.281, HENRY COUNTY	Shoulder treatments Widen shoulder - paved or other	6 Miles	61368 0	278945 3	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	207 0	55	State Highway Agency	Keeping vehicles in the roadway	
Installation of rumble strips along existing paved shoulders on	Roadway Rumble strips - edge or shoulder	0 Numb ers	30437 4	304374	HSIP (Sectio n 148)	Multiple Classes	0	55	State Highway Agency	Keeping vehicles in the roadway	

various roads in 7th Division											
SR-103 FROM MP 9.011 TO 15.293, GENEVA COUNTY	Shoulder treatments Widen shoulder - paved or other	6 Miles	58900 3	226539 5	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	140 1	55	State Highway Agency	Keeping vehicles in the roadway	
SAFETY IMPROVEMEN T AT BRIDGE ENDS ON CR- 66 OVER PATSALIGA RIVER, CRENSHAW COUNTY	Roadside Barrier end treatments (crash cushions, terminals)	1 Numb ers	35998	35998	HSIP (Sectio n 148)	Rural Local Road or Street	0	55	County Highway Agency	Minimizing the consequen ces of leaving the road	
SR-15 FROM 105.628 TO 113.12, PIKE COUNTY	Shoulder treatments Widen shoulder - paved or other	8 Miles	59810 6	299053 2	Other Federal -aid Funds (i.e. STP, NHPP)	MULTIPLE CLASSES	265 4	55	State Highway Agency	Keeping vehicles in the roadway	
SR-123 FROM MP 3.645 TO	Shoulder treatments Widen shoulder - paved	6 Miles	52910	195963	Other Federal	Rural Major	250	55	State Highway	Keeping vehicles in	

9.455, GENEVA COUNTY	or other		2	8	-aid Funds (i.e. STP, NHPP)	Collector	6		Agency	the roadway	
SR-103 FROM MP 15.293 TO 17.463, HOUSTON COUNTY	Shoulder treatments Widen shoulder - paved or other	2 Miles	12021 8	801451	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	970	55	State Highway Agency	Keeping vehicles in the roadway	
SR-123 FROM MP 9.455 TO 12.854, HOUSTON COUNTY	Shoulder treatments Widen shoulder - paved or other	3 Miles	29889 4	124539 3	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	278 5	55	State Highway Agency	Keeping vehicles in the roadway	
SR-25 FROM MP 30.354 TO 37, MARENGO COUNTY	Shoulder treatments Widen shoulder - paved or other	7 Miles	48333 9	210147 2	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	138 0	55	State Highway Agency	Keeping vehicles in the roadway	

SR-25 FROM MP 21.02 TO 30.354, MARENGO COUNTY	Shoulder treatments Widen shoulder - paved or other	9 Miles	49315 7	246578 7	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	172 7	55	State Highway Agency	Keeping vehicles in the roadway	
SR-13(US-43) FROM MP 115.30 TO 118.16, MARENGO COUNTY	Shoulder treatments Widen shoulder - paved or other	3 Miles	14311 0	914625	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Principal Arterial - Other	320 5	55	State Highway Agency	Keeping vehicles in the roadway	
SR-7(US 11 )FROM MP 0 TO 9, SUMTER COUNTY	Shoulder treatments Widen shoulder - paved or other	9 Miles	12556 1	251622 6	Other Federal -aid Funds (i.e. STP, NHPP)	Rural Major Collector	316 8	55	State Highway Agency	Keeping vehicles in the roadway	
SR-42 (US-98) FROM MP 36.109 TO 36.776, BALDWIN COUNTY	Shoulder treatments Widen shoulder - paved or other	1 Miles	11039 3	110393	HSIP (Sectio n 148)	Urban Principal Arterial - Other Freeways and	255 00	55	State Highway Agency	Keeping vehicles in the roadway	

						Expresswa ys					
SR-188 FROM MP 8.67 TO 19.687, MOBILE COUNTY	Shoulder treatments Widen shoulder - paved or other	11 Miles	18366 7	282565 0	Other Federal -aid Funds (i.e. STP, NHPP)	MULTIPLE CLASSES	306 6	55	State Highway Agency	Keeping vehicles in the roadway	
SR-193 FROM MP 3.97 TO 17.803, MOBILE COUNTY	Shoulder treatments Widen shoulder - paved or other	14 Miles	18366 7	264198 3	Other Federal -aid Funds (i.e. STP, NHPP)	MULTIPLE CLASSES	586 8	55	State Highway Agency	Keeping vehicles in the roadway	
Traffic Signal Inventory and Safety AnalysisPilot Project	Non-infrastructure	1 Numb ers	15576 2	155762	HSIP (Sectio n 148)	Not Applicable	0	0	State Highway Agency	Creating more effective processes and safety manageme nt systems	
First Reponder Solution Technique	Non-infrastructure	1 Numb ers	14787 6	147876	HSIP (Sectio n 148)	Not Applicable	0	0	State Highway Agency	Creating more effective processes	

System Development (FIRST)										and safety manageme nt systems	
Development of Statewide Road Safety Assessment Guidance (RSA) Manual	Non-infrastructure	1 Numb ers	26538 6	265386	HSIP (Sectio n 148)	Not applicable	0	0	State Highway Agency	Creating more effective processes and safety manageme nt systems	
CR-9 (PLACING GUARDRAIL AND PAVEMENT MARKERS), ST. CLAIR COUNTY	Roadside Barrier- metal	2 Miles	45702	45702	HRRRP (SAFETE A-LU)	Not Applicable	0	0	State Highway Agency	Minimizing the consequen ces of leaving the road	
UPGRADE SIGNS ON VARIOUS COUNTY ROADS (WINSTON COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	1 Numb ers	24678	24678	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	
UPGRADE SIGNS ON	Roadway signs and traffic control Roadway signs	1 Numb	14503	14503	HRRRP (SAFETE	Rural Local	0	45	State Highway	Improving informatio	

VARIOUS COUNTY ROADS (LAWRENCE COUNTY) TRAFFIC SIGNALS, STRIPING AND MARKINGS AT CAPSHAW ROAD, JONES RD, ZEHNER RD, QUINN RD, AND EASTER FERRY RD	(including post) - new or updated Roadway signs and traffic control Roadway signs and traffic control - other	ers 1 Numb ers	36681	36681	A-LU) HRRRP (SAFETE A-LU)	Road or Street Rural Local Road or Street	0	45	Agency County Highway Agency	n and decision support systems Improving informatio n and decision support systems	
(LIMESTONE COUNTY) TRAFFIC SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS (MORGAN COUNTY) RESTRIPING	Roadway signs and traffic control Roadway signs (including post) - new or updated Roadway signs and traffic	1 Numb ers	41027	41027	HRRRP (SAFETE A-LU) HRRRP	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	
	Reduwdy signs and trame	-	13314	133140		Narai	0	+5	County	mproving	

AND INSTALLING PAVEMENT MARKERS ON CR-29 FROM SR-22 TO CR- 56 (COOSA COUNTY)	control Roadway signs and traffic control - other	Numb ers	8		(SAFETE A-LU)	Local Road or Street			Highway Agency	informatio n and decision support systems	
SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS(CLEBU RNE COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	31 Numb ers	29234	29234	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	
SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS (RANDOLPH COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	31 Numb ers	42070	42070	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	
TRAFFIC STRIPING, MARKINGS, AND	Roadway signs and traffic control Roadway signs and traffic control - other	1 Numb ers	95183	95183	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision	

PAVEMENT MARKERS ON CR- 28(SANDFORT RD) FROM SR- 169 TO PHENIX CITY LIMITS, RUSSELL COUNTY										support systems	
SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS (CHAMBERS COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	123 Numb ers	34457	34457	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	
SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS(LEE COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	56 Numb ers	14010 5	140105	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	
TRAFFIC STRIPING,	Roadway delineation Longitudinal pavement	2 Numb	14010 5	140105	HRRRP (SAFETE	Rural Local	0	45	County Highway	Improving informatio	

#### 2013 Alabama Highway Safety Improvement Program

MARKINGS, AND PAVEMENT MARKINGS ON CR- 103/PINE GROVE RD FROM CR-24 TO SR-76 AND ON CR-26 FROM CR-511 TO 10TH STREET, TALLADEGA COUNTY	markings - remarking	ers			A-LU)	Road or Street			Agency	n and decision support systems	
RESURFACING , SIGNING, AND GUARDRAIL ON CR-63 FROM NORTH OF CR-861 TO BRIDGE AT UNNAMED TRIB. TO AT MULBERRY CREEK AND RESURFACING & SIGNING	Roadway Pavement surface - miscellaneous	1 Miles	33051 6	330516	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Keeping drivers alert	

ON CR-63 (DALLAS COUNTY) SIGN REPLACEMEN T ON	Roadway signs and traffic control Roadway signs (including post) - new or	1 Numb ers	52427	52427	HRRRP (SAFETE A-LU)	Rural Local Road or	0	45	County Highway Agency	Improving informatio n and	
VARIOUS COUNTY ROADS( AUTAUGA COUNTY)	updated					Street				decision support systems	
SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS(BULLO CK COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	1 Numb ers	26788	26788	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	
SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS (ELMORE COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	1 Numb ers	24173	24173	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	

SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS (MACON COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	1 Numb ers	28636	28636	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	
SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS (DALLAS COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	1 Numb ers	49056	49056	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	
SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS (DALE COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	1 Numb ers	48056	48056	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	
REMOVAL AND REALIGNMEN T OF A	Alignment Alignment - other	1 Miles	79875	79875	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Keeping vehicles in the roadway	

SEGMENT OF BITUMINOUS CONCRETE PAVEMENT ON CR-4 (GENEVA COUNTY)											
SIGN REPLACEMEN T ON VARIOUS COUNTY ROADS ( ESCAMBIA COUNTY)	Roadway signs and traffic control Roadway signs (including post) - new or updated	1 Numb ers	12228	12228	HRRRP (SAFETE A-LU)	Rural Local Road or Street	0	45	County Highway Agency	Improving informatio n and decision support systems	

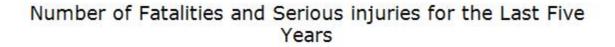
# **Progress in Achieving Safety Performance Targets**

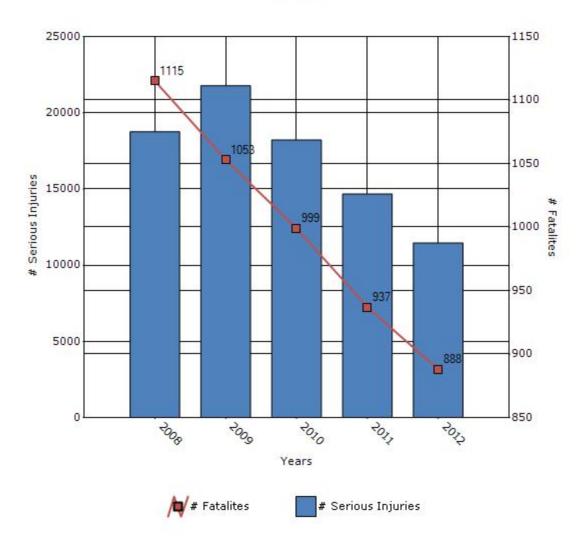
### **Overview of General Safety Trends**

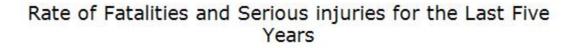
Present data showing the general highway safety trends in the state for the past five years.

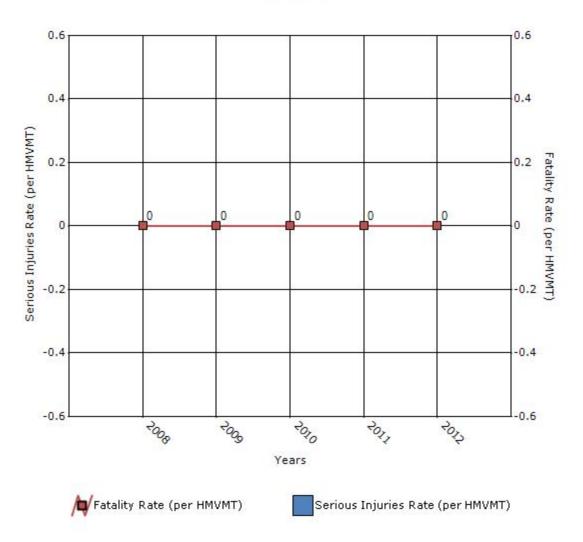
Performance Measures*	2008	2009	2010	2011	2012
Number of fatalities	1115	1053	999	937	888
Number of serious injuries	18755	21780	18222	14667	11459
Fatality rate (per HMVMT)	0	0	0	0	0
Serious injury rate (per HMVMT)	0	0	0	0	0

\*Performance measure data is presented using a five-year rolling average.









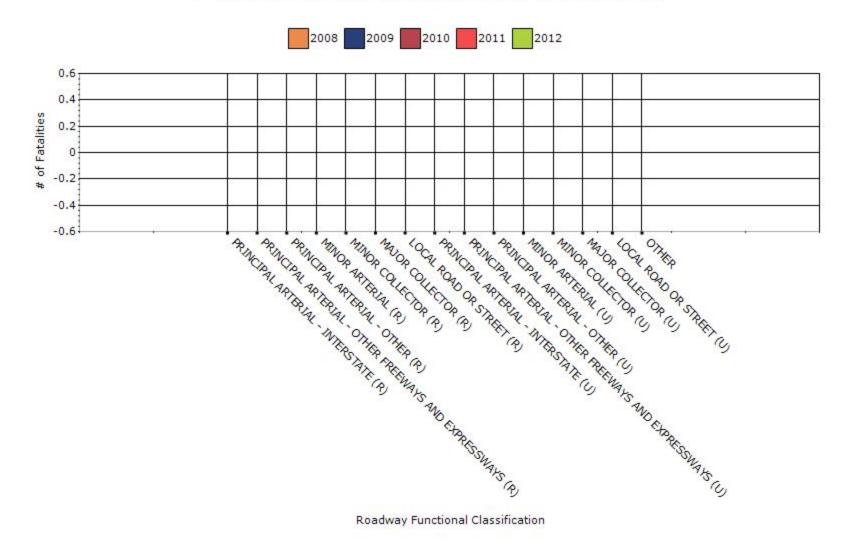
To the maximum extent possible, present performance measure\* data by functional classification and ownership.

# Year - 2012

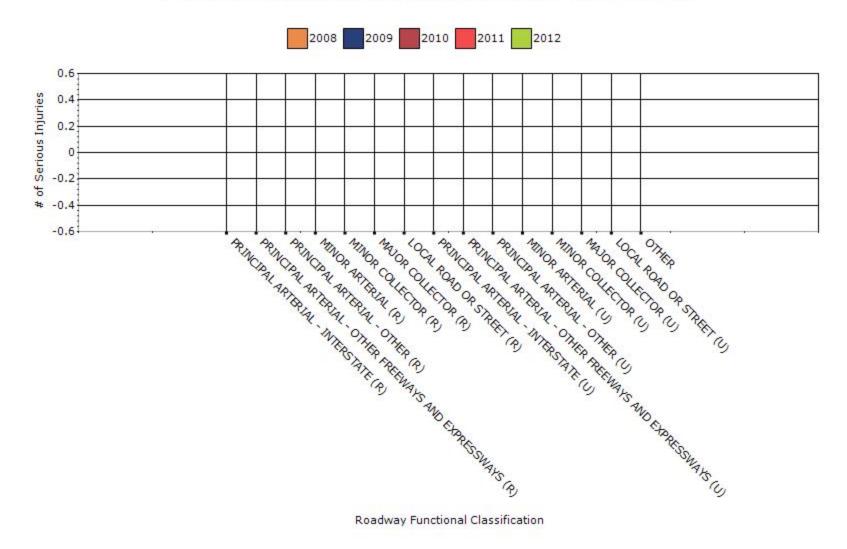
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	0	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER	0	0	0	0
RURAL MINOR ARTERIAL	0	0	0	0
RURAL MINOR COLLECTOR	0	0	0	0
RURAL MAJOR COLLECTOR	0	0	0	0
RURAL LOCAL ROAD OR STREET	0	0	0	0
URBAN PRINCIPAL	0	0	0	0

ARTERIAL - INTERSTATE				
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0	0	0	0
URBAN PRINCIPAL ARTERIAL - OTHER	0	0	0	0
URBAN MINOR ARTERIAL	0	0	0	0
URBAN MINOR COLLECTOR	0	0	0	0
URBAN MAJOR COLLECTOR	0	0	0	0
URBAN LOCAL ROAD OR STREET	0	0	0	0
OTHER	0	0	0	0
OTHER	0	0	0	0

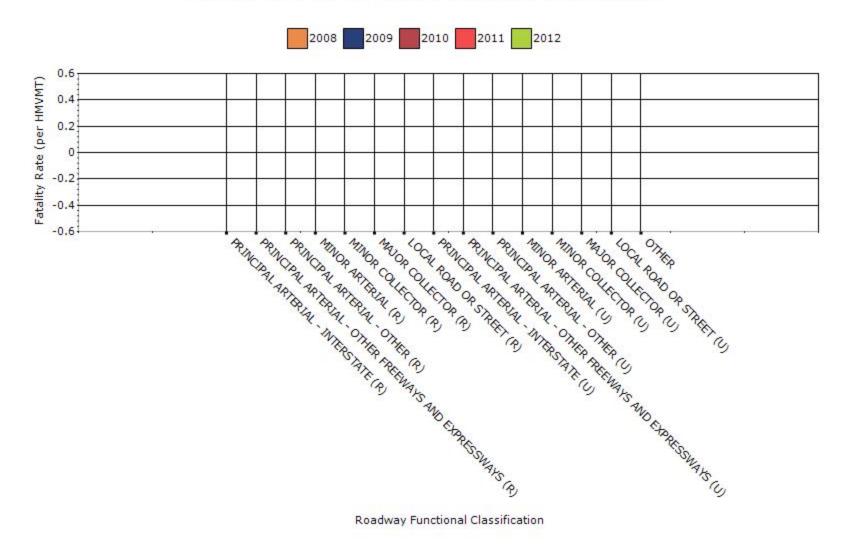
### # Fatalities by Roadway Functional Classification



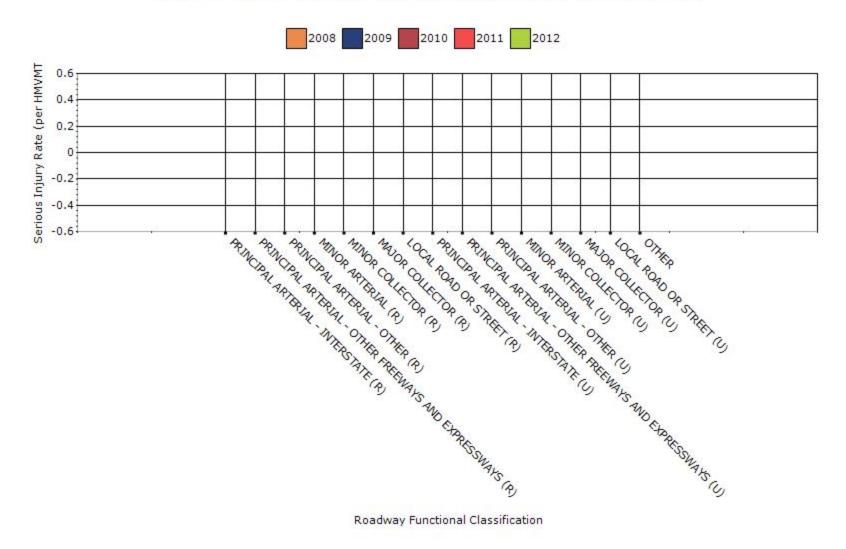
### # Serious Injuries by Roadway Functional Classification



### Fatality Rate by Roadway Functional Classification



## Serious Injury Rate by Roadway Functional Classification

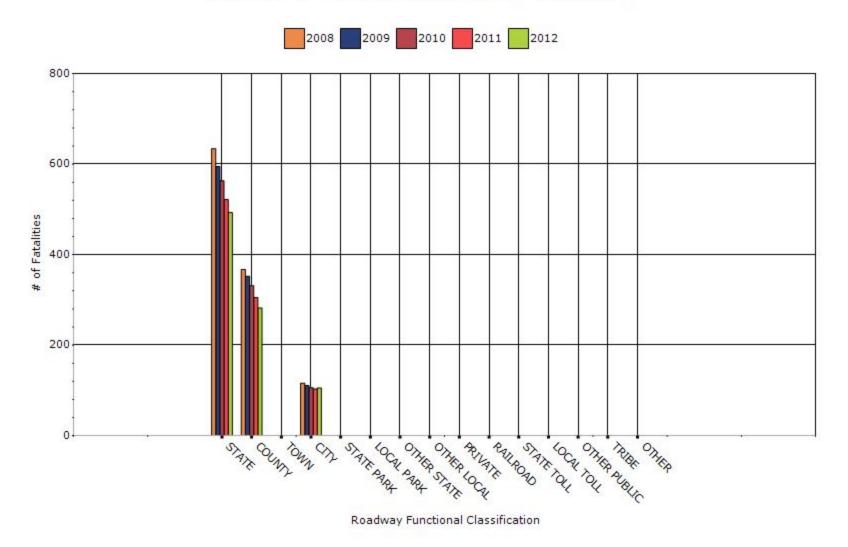


# Year - 2012

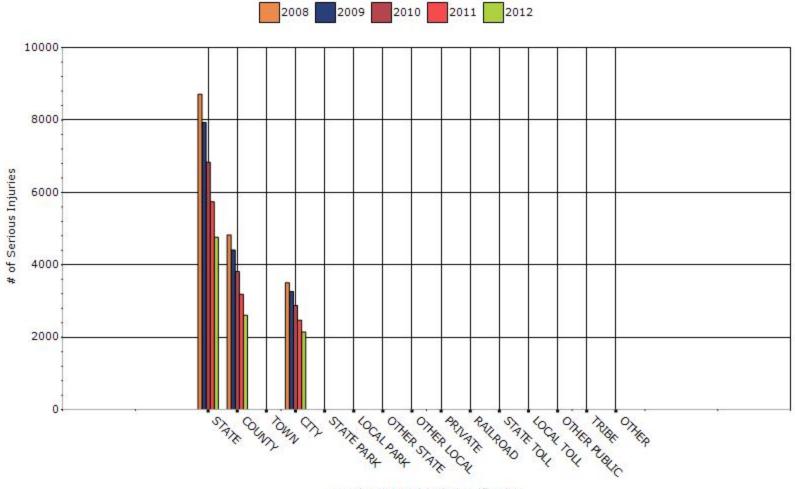
Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	493	4763	0	0
COUNTY HIGHWAY AGENCY	282	2605	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	105	2145	0	0
STATE PARK, FOREST, OR RESERVATION AGENCY	0	0	0	0
LOCAL PARK, FOREST OR RESERVATION AGENCY	0	0	0	0
OTHER STATE AGENCY	0	0	0	0
OTHER LOCAL AGENCY	0	0	0	0
PRIVATE (OTHER THAN RAILROAD)	0	0	0	0

RAILROAD	0	0	0	0
STATE TOLL AUTHORITY	0	0	0	0
LOCAL TOLL AUTHORITY	0	0	0	0
OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UNIVERSITY)	0	0	0	0
INDIAN TRIBE NATION	0	0	0	0
OTHER	0	0	0	0
OTHER	0	0	0	0

## Number of Fatalities by Roadway Ownership

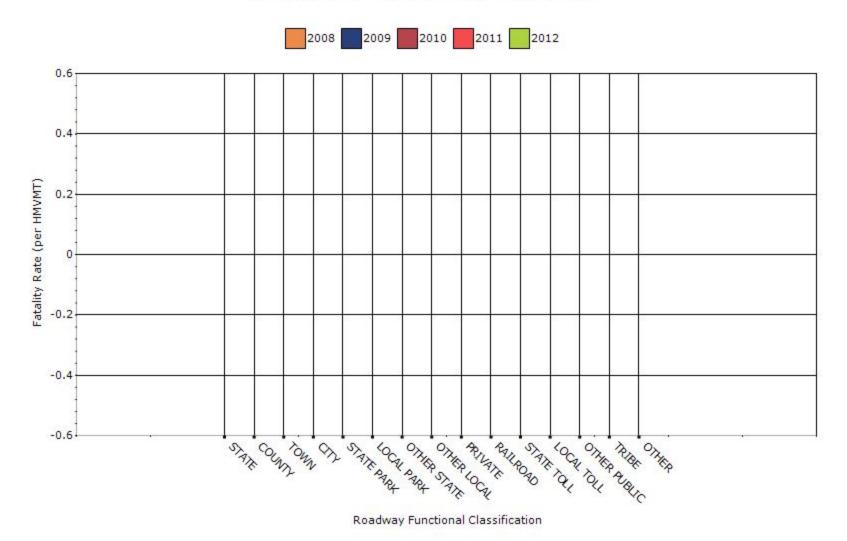


## Number of Serious Injuries by Roadway Ownership



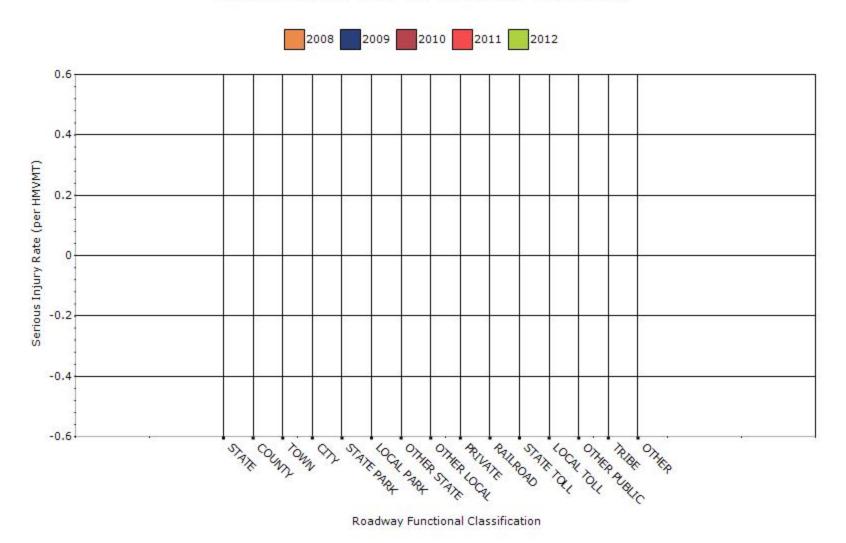
Roadway Functional Classification

## Fatality Rate by Roadway Ownership



72

#### Serious Injury Rate by Roadway Ownership



Describe any other aspects of the general highway safety trends on which you would like to elaborate.

Alabama does not have the ability to extract roadway functional classification crash data at this time. Also, the Rate of Fatalities and Serious Injuries for roadway classification or roadway functional classification are not available.

#### **Application of Special Rules**

Present the rate of traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65.

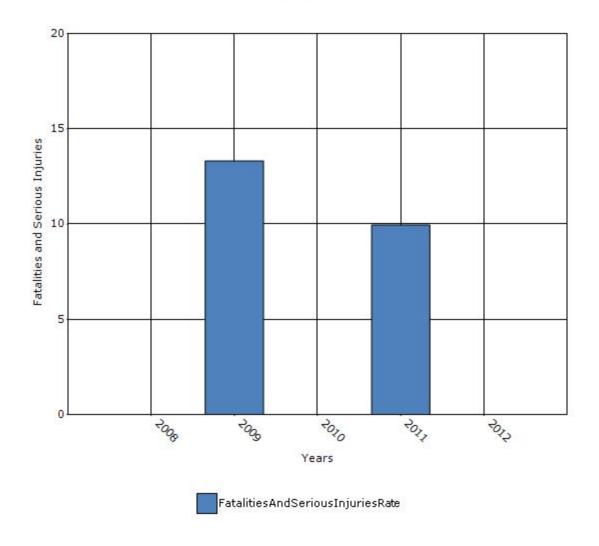
Older Driver	2008	2009	2010	2011	2012
Performance Measures					
Fatality rate (per capita)	0	0	0	0	0
Serious injury rate (per capita)	0	0	0	0	0
Fatality and serious injury rate (per capita)	0	13.32	0	9.95	0

\*Performance measure data is presented using a five-year rolling average.

The State of Alabama used the FARS data and Alabama's Critical Analysis Reporting Environment (CARE). The FARS data for Alabama included Fatalities for Older Drivers and Pedestrians. From the CARE system, the total number of serious injury crashes was used. The two were added together then divided by the number of people in the State who are 65 years of age and older compared to the total State population to determine the rate.

The Special Rule does not apply to the State of Alabama at this time.

#### Rate of Fatalities and Serious injuries for the Last Five Years



#### Does the older driver special rule apply to your state?

No

# Assessment of the Effectiveness of the Improvements (Program Evaluation)

What indicators of success can you use to demonstrate effectiveness and success in the Highway Safety Improvement Program?

None

Benefit/cost

Policy change

Other:

#### What significant programmatic changes have occurred since the last reporting period?

Shift Focus to Fatalities and Serious Injuries

Include Local Roads in Highway Safety Improvement Program

Organizational Changes

None

Other:

Briefly describe significant program changes that have occurred since the last reporting period.

None

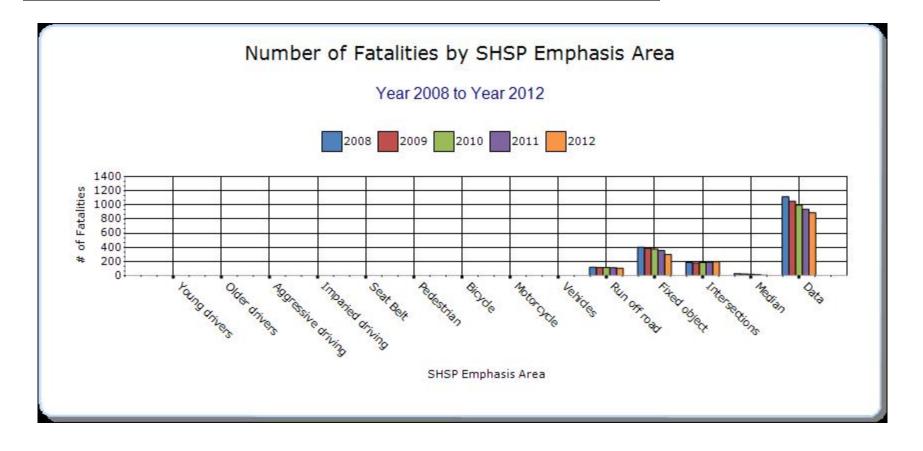
#### SHSP Emphasis Areas

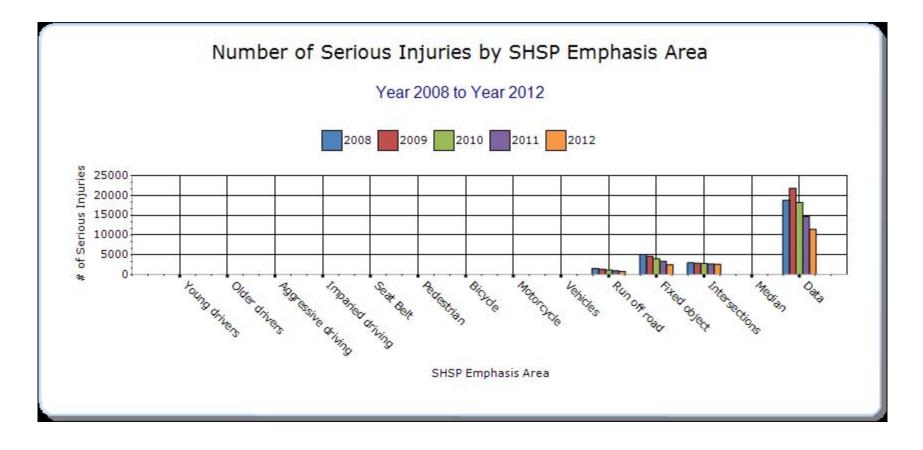
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

#### Year - 2012

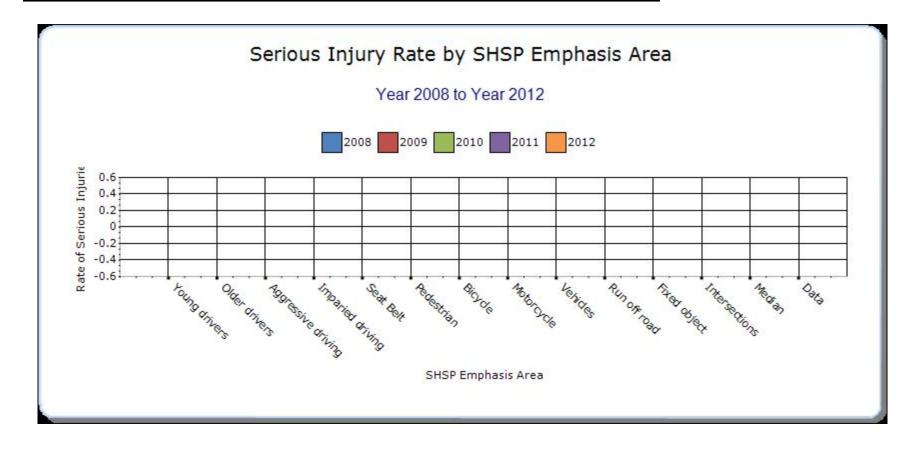
HSIP-related SHSP Emphasis Areas	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other- 1	Other- 2	Other- 3
Instituting graduated licensing for younger drivers		0	0	0	0	0	0	0
Sustaining proficiency in older drivers		0	0	0	0	0	0	0
Curbing aggressive driving		0	0	0	0	0	0	0
Reducing impaired driving		0	0	0	0	0	0	0
Increasing seat belt use and improving airbag effectiveness		0	0	0	0	0	0	0
Making walking and street crossing easier		0	0	0	0	0	0	0
Ensuring safer bicycle travel		0	0	0	0	0	0	0
Improving motorcycle safety and increasing		0	0	0	0	0	0	0

motorcycle awareness								
Increasing safety enhancements in vehicles		0	0	0	0	0	0	0
Keeping vehicles in the roadway	STATE ROUTES_ROR Crashes	104	812	0	0	0	0	0
Minimizing the consequences of leaving the road	Run-off-road	298	2516	0	0	0	0	0
Improving the design and operation of highway intersections	Intersection Crashes	197	2617	0	0	0	0	0
Reducing head-on and across-median crashes	Interstate Median Crashes	7	15	0	0	0	0	0
Improving information and decision support systems	All	888	11459	0	0	0	0	0







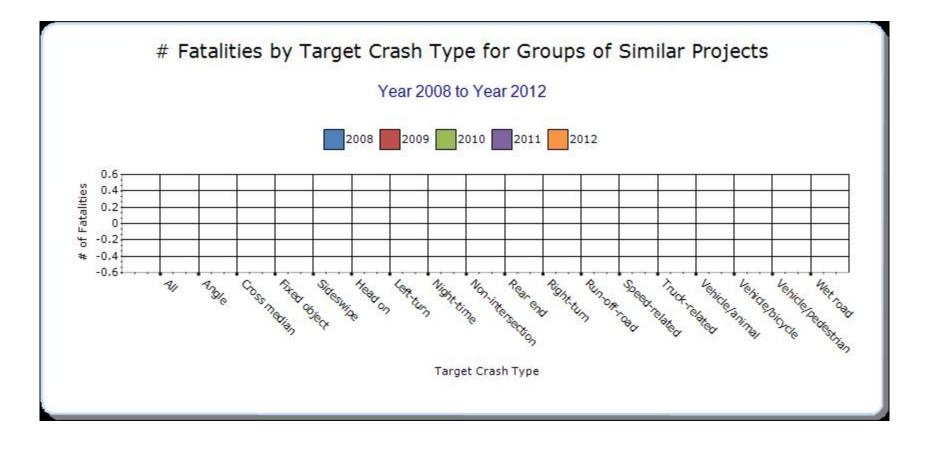


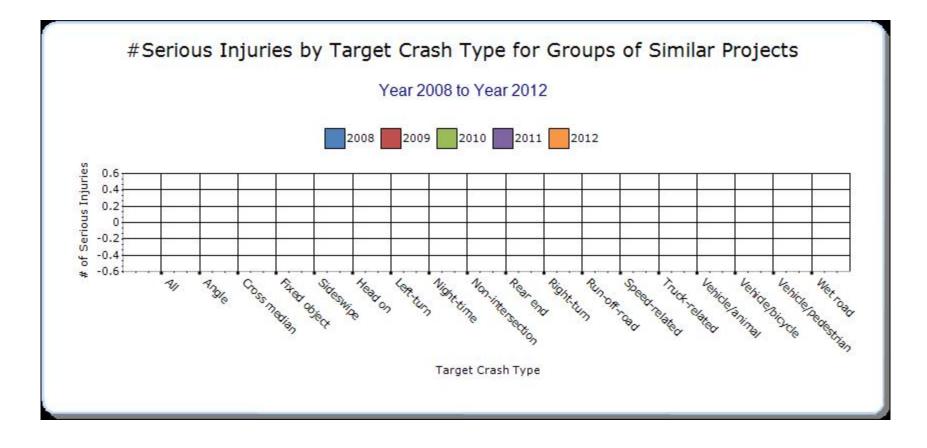
Groups of similar project types

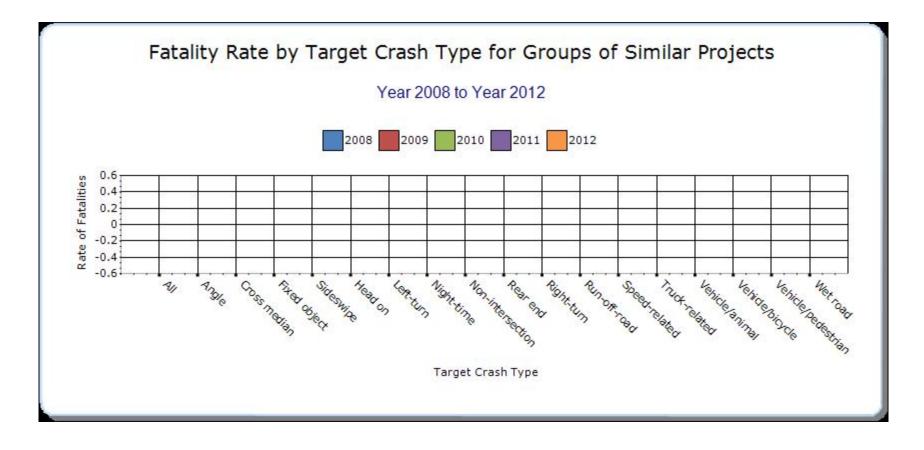
Present the overall effectiveness of groups of similar types of projects.

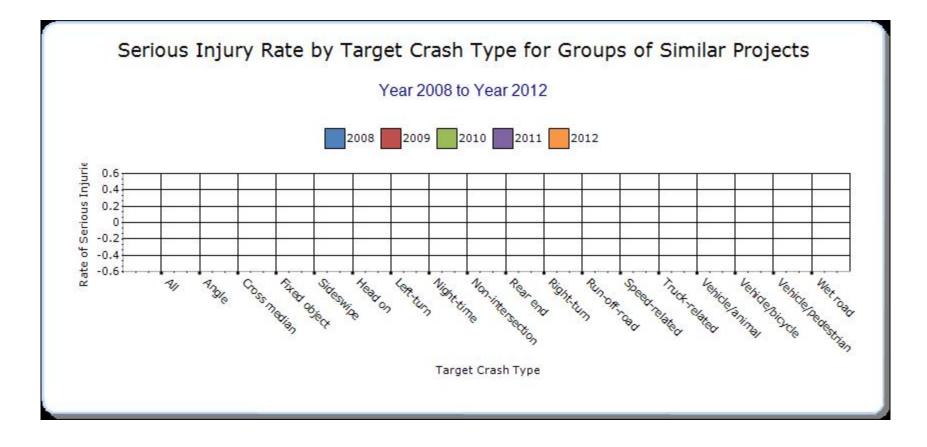
#### Year - 2012

HSIP Sub-program Types	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other- 1	Other- 2	Other- 3
Roadway Departure	STATE ROUTES_ROR Crashes	104	812	0	0	0	0	0
Median Barrier	Interstate Median Crashes	7	13	0	0	0	0	0







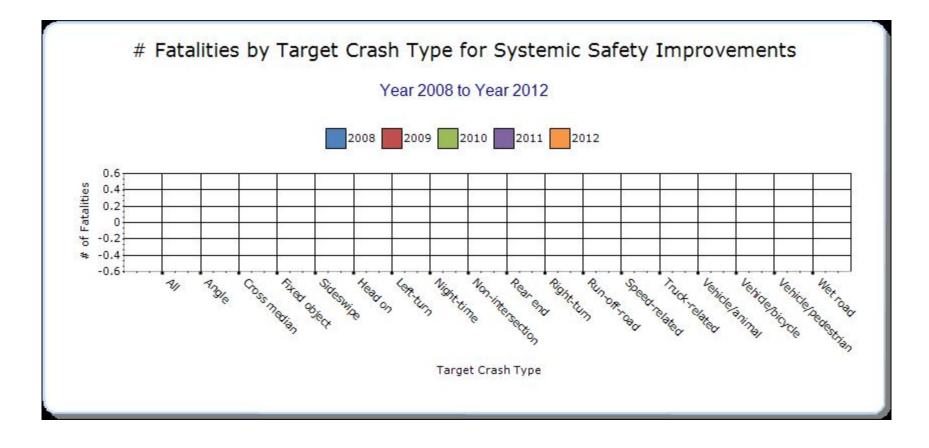


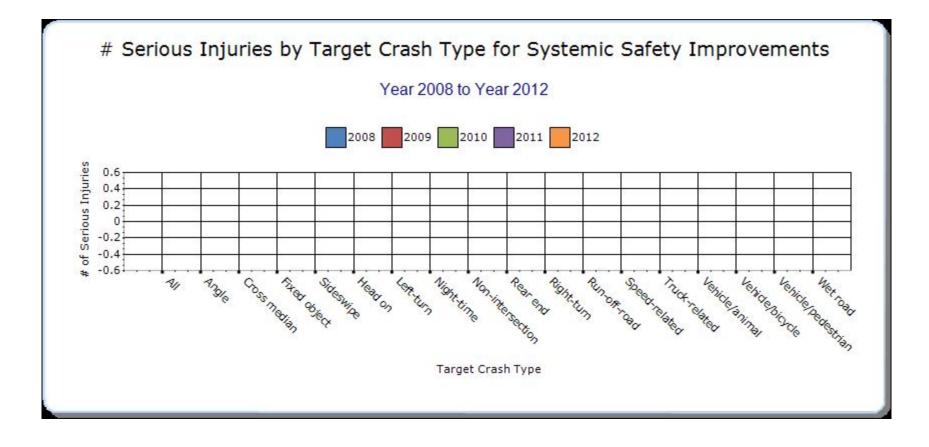
## Systemic Treatments

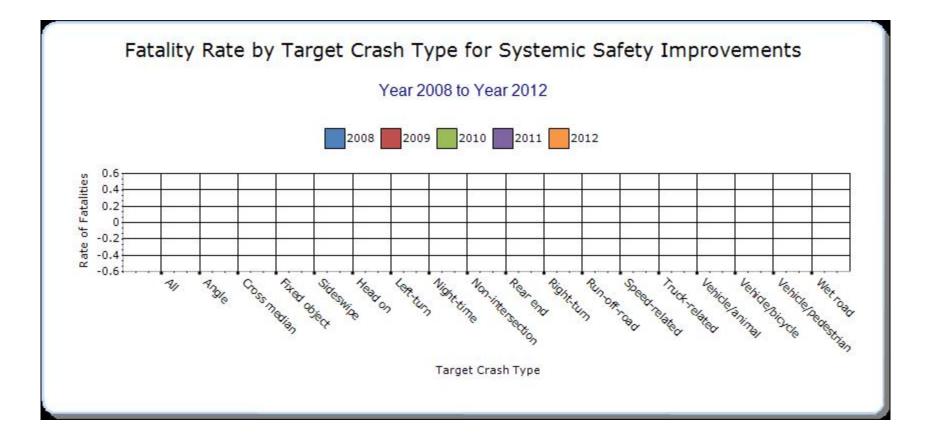
Present the overall effectiveness of systemic treatments..

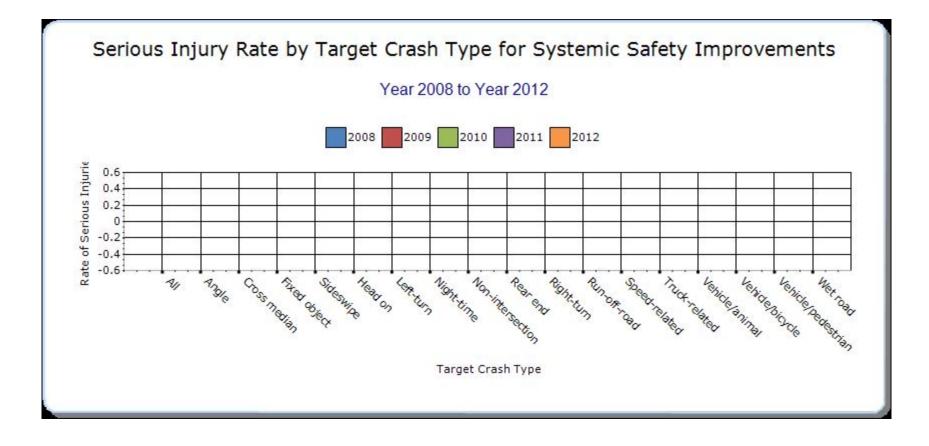
#### Year - 2012

Systemic	Target	Number of	Number of	Fatality rate (per	Serious injury rate	Other-	Other-	Other-
improvement	Crash Type	fatalities	serious injuries	HMVMT)	(per HMVMT)	1	2	3
Pavement/Shoulder Widening	State Routes_ROR crashes	104	812	0	0	0	0	0
Cable Median Barriers	Interstate Median Crashes	7	15	0	0	0	0	0









Describe any other aspects of the overall Highway Safety Improvement Program effectiveness on which you would like to elaborate.

ALDOT has been integrating the Highway Safety Manual (HSM), GIS system and roadway inventory into the various safety program to improve safety data collection and analysis. There is also a study on "Integrating Safety and Operations into Planning, Design, Construction, and Post Construction Operations." This study includes research methodology and data collection , creates an enviroment for integrating Operations and Safety into Multimodal Planning efforts, reviews statewide, regional , corridor and sub-area opportunites, then concludes with a final workshop and study documentations.

#### 2013 Alabama

Location	Functional Class	Improvement Category	Fatal	Bef- Serious Injury	Bef- Other Injury	Bef- PDO	Fatal	Serious		Total	Evaluation Results (Benefit/ Cost Ratio)
none	Urban Local Road or Street										

Provide project evaluation data for completed projects (optional).

## **Optional Attachments**

Sections

Program Structure: Program Methodology

**Files Attached** 

Table of Brief Summary of Current programs\_2013.docx

#### Glossary

**5 year rolling average** means the average of five individual, consecutive annual points of data (e.g. annual fatality rate).

**Emphasis area** means a highway safety priority in a State's SHSP, identified through a data-driven, collaborative process.

**Highway safety improvement project** means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.

HMVMT means hundred million vehicle miles traveled.

**Non-infrastructure projects** are projects that do not result in construction. Examples of noninfrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.

**Older driver special rule** applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.

**Performance measure** means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.

**Programmed funds** mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.

**Roadway Functional Classification** means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

**Strategic Highway Safety Plan (SHSP)** means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.

**Systemic safety improvement** means an improvement that is widely implemented based on high risk roadway features that are correlated with specific severe crash types.

**Transfer** means, in accordance with provisions of 23 U.S.C. 126, a State may transfer from an apportionment under section 104(b) not to exceed 50 percent of the amount apportioned for the fiscal year to any other apportionment of the State under that section.