

Highway Safety Improvement Program Data Driven Decisions

Illinois Highway Safety Improvement Program 2013 Annual Report

Prepared by: IL

## 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 Highway Safety Improvement Program is administered and monitored by the Illinois Department of Transportation Bureau of Safety Engineering. IDOT works with safety partners to direct limited program dollars to areas with the greatest potential for safety improvement on the transportation system. IDOT uses safety performance functions and the systemic approach for identifying areas of improvement. Projects are selected based on their potential to reduce fatal and severe crashes economically using the IDOT benefit-cost evaluation tool. This year IDOT increased funds to the local roadway system to address increasing fatalities on locally owned routes. Overall the program has been effective as there has been a consistent downward trend in fatalities and serious injuries. There was a slight increase in fatalities in 2012 and the numbers seems to be less for 2013 and will be continually monitored. While progress is being made, Illinois continues to modify the approach to achieve Zero Fatalities on Illinois roadways.

# 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.

After identifying increasing fatalities on the local roadway system, the Illinois Department of Transportation increased focus on local roadways by launching the Local Road Safety Initiative targeted for all counties and MPO but focusing on those with the highest potential safety improvement opportunity. Elements of the program include technical support to develop county SHSPs that include crash data trees, heat maps and identification of site specific improvements using the FHWA Systemic Tool approach for identifying low cost safety improvements system-wide. In addition to system-wide improvements, we prepared FIVE PERCENT location for the local system to address high priority locations. In addition to technical support, the DOT coordinates safety 4E workshops that encourage coordination and training locals on HSIP best practices. Based on the technical support provided, local agencies apply for HSIP funds for implementation. The HSIP applications are reviewed in IDOT Central Office to approve projects. The participation continues to grow and the quality of applications have improved significantly.

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

Design
Planning
Maintenance
Operations
Governors Highway Safety Office

Other: Other-Local agencies

#### Briefly describe coordination with internal partners.

Each District has a safety committee comprised of representative in design, planning and operations. This committee reviews crash data, performs field reviews, and identifies potential HSIP projects based on priority and safety needs.

The Districts review local HSIP applications and provide input and recommendations prior to submitting applications to IDOT Central Office.

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

Metropolitan Planning Organizations

Governors Highway Safety Office

Local Government Association

Other: Other-Local agencies

Other: Other-Law enforcement

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-IDOT continues to use a safety committee to help administer the program

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

The districts and local agencies submit HSIP applications through the HSIP SharePoint site for review and approval by a central safety committee.

#### **Program Methodology**

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



⊠Local Safety	Pedestrian Safety	Right Angle Crash
Left Turn Crash	Shoulder Improvement	Segments
Other:		

Program:	Intersection	
Date of Program Methodology:	6/30/2011	
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-Traffic control, urban versus rural areas, the number of intersection legs

### 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

If no, describe the methodology used to identify local road projects as part of this program.

Systemic risk based approaches and site specific crash history based approaches

#### 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

Incremental B/C

Ranking based on net benefit

Cost Effectiveness 1

Program:Roadway DepartureDate of Program Methodology:6/30/2011

2

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

Crashes	Exposure	Roadway
All crashes	Traffic	igwedgeMedian 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
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-benefit to cost analysis
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
If no, describe the methodology used to identify local road projects as part of this program.

Systemic risk based approaches and site specific crash history based approaches

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

Program:

Sign Replacement And Improvement

Date of Program Methodology: 6/30/2011

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-benefit cost analysis

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

If no, describe the methodology used to identify local road projects as part of this program.

State routes are not eligible for this Rural Road Sign Upgrade Program

#### 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 2
Incremental B/C
Ranking based on net benefit

Cost Effectiveness 1

Program:	Local Safety	
Date of Program Methodology:	6/30/2011	
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-Systemic Risk based approach, local knowledge

#### 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

If no, describe the methodology used to identify local road projects as part of this program.

State routes are not eligible for this program

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

Program:	Segments
Date of Program Methodology:	6/30/2011

### 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-Number of lanes, urban versus rural, median type

#### 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

If no, describe the methodology used to identify local road projects as part of this program.

Systemic risk based approaches and site specific crash history based approaches

#### 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

Incremental B/C

Ranking based on net benefit

Cost Effectiveness 1

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

2

40

# 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

#### 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: Other-We have been using the Highway Safety Manual, Road Safety Assessments and the Systemic Approach since 2007.

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

We have been using the Highway Safety Manual, Road Safety Assessments and the Systemic Approach since 2007.

## **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)	57100000	95 %	41200000	100 %			
HRRRP (SAFETEA-LU)	3300000	5 %	100000	0 %			
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)				
State and Local Funds				
Totals	60400000	100%	41300000	100%

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

\$12,200,000.00

How much funding is obligated to local safety projects?

\$8,900,000.00

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

\$0.00

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

\$0.00

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

\$0.00

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

\$0.00

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

IDOT programs HSIP funds several years in advance where possible in order to allow lead time for planning, design and implementation. At the local level, funds must be obligated within two years to avoid unspent funds. We are preparing county safety plans and hosting local safety workshops to improve the quality and quantity of HSIP involvement at the local level.

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

Overtime we continue to add systemic analysis and program improvements. The systemic approach continues to be a growing aspect of the HSIP program.

### **General Listing of Projects**

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

Project	Improvement	Outpu	HSIP	Total	Fundin	Functiona	AADT	Spe	Roadwa	Relationshi	ip to SHSP
	Category	t	Cost	Cost	g	1		ed	у		
					Catego	Classificat			Owners	Emphasis	Strategy
					ry	ion			hip	Area	
					-				-		
201112004	Interrection troffic	1	26240	41000		Linhan	2220	45	Ctata	luo na novin	Cignolization
201112004.		1	26240	41000		Urban	3320	45	State	Improvin	Signalization,
xml	control Modify traffic	Numb			(Sectio	Minor	0		Highway	g the	Signing
	signal -	ers			n 148)	Arterial			Agency	design	
	modernization/replac									and	
	ement									operation	
										of	
										highway	
										intersecti	
										ons	
201201001-	Roadway Pavement	10	21824	34100	HSIP	Rural	3700	50	State	Keeping	Pavement
1.xml	surface -	Miles	0	0	(Sectio	Principal			Highway	vehicles	
	miscellaneous				n 148)	Arterial -			Agency	in the	
						Other				roadway	
									<b>0</b> 1		
201201002.	Intersection	1	23680	37000	HSIP	Urban	2060	45	State	Improvin	Intersection
xml	geometry	Numb	0	0	(Sectio	Minor	0		Highway	g the	Geometry
	Intersection	ers			n 148)	Arterial			Agency	design	
	geometry - other									and	
										operation	
										of	

201201004. xml	Intersection geometry Intersection geometry - other	1 Numb ers	21760 0	34000 0	HSIP (Sectio n 148)	Urban Principal Arterial - Other	2510 0	45	State Highway Agency	highway intersecti ons Improvin g the design and operation of highway intersecti ons	Intersection Geometry
201201006. xml	Shoulder treatments Widen shoulder - paved or other	10 Miles	12257 28	19152 00	HSIP (Sectio n 148)	Rural Minor Arterial	8200	55	State Highway Agency	Keeping vehicles in the roadway	Pavement,Pave ment Treatments, Pavement marking
201201007. xml	Roadway Rumble strips - edge or shoulder	10 Miles	12480 0	19500 0	HSIP (Sectio n 148)	Rural Principal Arterial - Interstate	2450 0	65	State Highway Agency	Keeping vehicles in the roadway	Pavement Marking
201202001. xml	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numb ers	54400 0	85000 0	HSIP (Sectio n 148)	Rural Principal Arterial - Other	8950	50	State Highway Agency	Improvin g the design and operation of	Intersection Geometry

201202002. xml	Lighting Intersection lighting	1 Numb ers	65000 0	65000 0	HSIP (Sectio n 148)	Urban Principal Arterial - Other	3710 0	45	State Highway Agency	highway intersecti ons Improvin g the design and operation of highway intersecti ons	Intersection Geometry, Lighting, Signalization
201202003-	Roadway Rumble	10 Milos	75264 0	11760 00	HSIP (Sectio	Rural	5400	55	State	Keeping	Pavement Marking
1.800	shoulder	whies	U	00	(Sectio n 148)	Arterial			Agency	in the	Pavement
										roadway	treatments
201202004.	Roadway Rumble	10	25440	25440	HSIP	Rural	9000	50	State	Increasin	Pavement
xmi	strips - edge or shoulder	willes	00	00	(Sectio n 148)	Arterial			Agency	g driver safety	Treatments
									0 /	awarenes	
										S	
201203001.	Intersection traffic	1	52000	52000	HSIP	Rural	0	45	State	Improvin	Pavement
xml	control Modify	Numb	0	0	(Sectio	Minor			Highway	g the	
	stop to all-way stop	ers			11 148)	Arteriai			Адепсу	and	
	····									operation	
										of	

										highway	
										intersecti	
										ons	
201203003.	Intersection traffic	1	12150	13500	HSIP	Urban	2100	45	State	Improvin	Signalization
xml	control Modify traffic	Numb	00	00	(Sectio	Principal	00		Highway	g the	
	signal - add additional	ers			n 148)	Arterial -			Agency	design	
	signal heads					Other				and	
										operation	
										of	
										highway	
										intersecti	
										ons	
201203004.	Intersection traffic	1	10800	12000	HSIP	Urban	1367	30	State	Improvin	Signalization
xml	control Modify traffic	Numb	00	00	(Sectio	Principal	00		Highway	g the	
	signal - add additional	ers			n 148)	Arterial -			Agency	design	
	signal heads					Other				and	
										operation	
										of	
										highway	
										intersecti	
										ons	
201203007.	Intersection traffic	1	10350	11500	HSIP	Urban	4600	35	State	Improvin	Pavement,
xml	control Modify traffic	Numb	00	00	(Sectio	Principal	0		Highway	g the	Signalization
	signal - add additional	ers			n 148)	Arterial -			Agency	design	
	signal heads					Other				and	
										operation	
										of	

201203008. xml	Intersection traffic control Modify traffic signal - add additional signal heads	1 Numb ers	18000 00	20000 00	HSIP (Sectio n 148)	Urban Principal Arterial - Other	6900 0	35	State Highway Agency	highway intersecti ons Improvin g the design and operation of highway intersecti ons	Signalization
201203009. xml	Intersection traffic control Modify control - all-way stop to roundabout	1 Numb ers	52830 00	58700 00	HSIP (Sectio n 148)	Rural Principal Arterial - Other	1165 0	55	State Highway Agency	Improvin g the design and operation of highway intersecti ons	Pavement Treatments, Roadside
201203010. xml	Intersection traffic control Modify traffic signal - modernization/replac ement	1 Numb ers	18000 00	20000 00	HSIP (Sectio n 148)	Urban Principal Arterial - Other	3400 0	45	State Highway Agency	Improvin g the design and operation of	Signalization, Pavement

201203011. xml	Shoulder treatments Widen shoulder - paved or other	10 Miles	16200 00	18000 00	HSIP (Sectio n 148)	Rural Minor Arterial	1170 0	50	State Highway Agency	highway intersecti ons Keeping vehicles in the roadway	Pavement Treatments
201203012- 1.xml	Roadway Pavement surface - high friction surface	10 Miles	11700 00	13000 00	HSIP (Sectio n 148)	Urban Minor Arterial	1220 0	45	State Highway Agency	Keeping vehicles in the roadway	Pavement Treatments
201203013. xml	Intersection traffic control Modify traffic signal - modernization/replac ement	1 Numb ers	15750 00	17500 00	HSIP (Sectio n 148)	Urban Principal Arterial - Other	2575 0	55	State Highway Agency	Improvin g the design and operation of highway intersecti ons	Signalization, Pavement Treatment
201203014. xml	Intersection traffic control Modify traffic signal - add additional signal heads	1 Numb ers	10800 00	12000 00	HSIP (Sectio n 148)	Urban Principal Arterial - Other	3740 0	35	State Highway Agency	Improvin g the design and operation of highway	Signalization, Pavement Treatment

						-				-	
										intersecti	
										ons	
201203015	Intersection traffic	1	63000	70000	HSIP	Urhan	8000	40	State	Improvin	Signalization
vml	control Modify traffic	Numb	0	0	(Sectio	Princinal	0	-10	Highway	σ the	Signalization
	signal - add additional	ors	U	U	n 1/8	Artorial -			Λσοηςν	design	
		613			11 140)	Artendi -			Agency	and	
	Signal neaus					Other				oporation	
										of	
										01 bigbwov	
										interesti	
										Intersecti	
										ons	
201203016.	Intersection traffic	1	90000	10000	HSIP	Urban	4610	30	State	Improvin	Signalization
xml	control Modify traffic	Numb	0	00	(Sectio	Principal	0		Highway	g the	
	signal - add additional	ers			n 148)	Arterial -			Agency	design	
	signal heads					Other				and	
										operation	
										of	
										highway	
										intersecti	
										ons	
201203019-	Intersection traffic	1	96300	10700	HSIP	Urban	0	45	State	Improvin	Signalization
1.xml	control Modify traffic	Numb	0	00	(Sectio	Minor			Highway	g the	
	signal - add additional	ers			n 148)	Arterial			Agency	design	
	signal heads									and	
										operation	
										of	
										highway	

										intersecti ons	
201203020. xml	Intersection traffic control Modify traffic signal - add additional signal heads	1 Numb ers	18000 00	20000 00	HSIP (Sectio n 148)	Urban Principal Arterial - Other	1951 00	40	State Highway Agency	Keeping vehicles in the roadway	Pavement,Pave ment Treatments, Pavement marking
201204001- 1.xml	Shoulder treatments Widen shoulder - paved or other	10 Miles	20326 40	31760 00	HSIP (Sectio n 148)	Rural Minor Arterial	1850	55	State Highway Agency	Keeping vehicles in the roadway	Pavement,Pave ment Treatments, Pavement marking
201204002. xml	Shoulder treatments Widen shoulder - paved or other	10 Miles	96000	15000 0	HSIP (Sectio n 148)	Rural Minor Arterial	2350	55	State Highway Agency	Keeping vehicles in the roadway	Pavement Treatments, Pavement marking
201205001. xml	Intersection traffic control Modify traffic signal - modernization/replac ement	1 Numb ers	20000 0	20000 0	HSIP (Sectio n 148)	Urban Minor Arterial	1202 5	45	State Highway Agency	Making truck travel safer	Signalization
201205002. xml	Intersection traffic control Intersection flashers - add overhead	1 Numb ers	50000	50000	HSIP (Sectio n 148)	Rural Minor Arterial	4900	45	State Highway Agency	Reducing vehicle- train crashes	Signalization, Lighting, Signing

	(continuous)										
201205003. xml	Intersection traffic control Modify traffic signal - add additional signal heads	1 Numb ers	25000	25000	HSIP (Sectio n 148)	Urban Principal Arterial - Other	1820 0	45	State Highway Agency	Improvin g the design and operation of highway intersecti ons	Signalization
201206001. xml	Alignment Horizontal curve realignment	1 Numb ers	19200 00	30000 00	HSIP (Sectio n 148)	Rural Minor Arterial	6700	55	State Highway Agency	Keeping vehicles in the roadway	Curves
201207002. xml	Roadside Barrier - cable	10 Miles	59600 00	59600 00	HSIP (Sectio n 148)	Rural Principal Arterial - Interstate	3440 0	65	State Highway Agency	Keeping vehicles in the roadway	Median Treatments, Roadside
201207003. xml	Intersection traffic control Modify traffic signal timing - adjust clearance interval (yellow change and/or all-red)	1 Numb ers	30000 0	30000 0	HSIP (Sectio n 148)	Urban Minor Arterial	1000 0	45	State Highway Agency	Improvin g the design and operation of highway intersecti	Signalization, Intersection Geometry

										ons	
201208001- 1.xml	Roadway delineation Raised pavement markers	10 Miles	70000 00	70000 00	HSIP (Sectio n 148)	Rural Principal Arterial - Other	8100	55	State Highway Agency	Keeping vehicles in the roadway	Pavement Marking, Pavement
201209001. xml	Roadway Rumble strips - edge or shoulder	10 Miles	69000	69000	HSIP (Sectio n 148)	Rural Minor Arterial	6700	55	State Highway Agency	Keeping vehicles in the roadway	Pavement Marking
201209002. xml	Roadway Rumble strips - edge or shoulder	10 Miles	76000 0	76000 0	HSIP (Sectio n 148)	Rural Minor Arterial	2800	55	State Highway Agency	Keeping vehicles in the roadway	Pavement Treatments, Rumble Strips
201209003. xml	Roadway Rumble strips - edge or shoulder	10 Miles	63000 0	63000 0	HSIP (Sectio n 148)	Rural Minor Arterial	1200	55	State Highway Agency	Reducing impaired driving	Pavement Treatments, Pavement marking
201209004. xml	Roadway Rumble strips - edge or shoulder	10 Miles	50250 00	50250 00	HSIP (Sectio n 148)	Rural Principal Arterial - Other	3350	55	State Highway Agency	Keeping vehicles in the roadway	Pavement Marking, Pavement Treatments
201209005. xml	Intersection traffic control Intersection flashers - add overhead	1 Numb ers	16500	16500	HSIP (Sectio n 148)	Urban Principal Arterial -	2950 0	0	State Highway Agency	Curbing aggressiv e driving	Signing

	(continuous)					Interstate					
	(,										
201209007.	Roadside Barrier-	10	10560	10560	HSIP	Urban	5234	55	State	Keeping	Roadside
xml	metal	Miles	00	00	(Sectio	Principal	0		Highway	vehicles	
					n 148)	Arterial -			Agency	in the	
						Interstate				roadway	
201209008.	Roadside Barrier -	10	12240	12240	HSIP	Rural	2140	65	State	Keeping	Median
xml	cable	Miles	00	00	(Sectio	Principal	0		Highway	vehicles	Treatments
					n 148)	Arterial -			Agency	in the	
						Interstate				roadway	
201209009.	Lighting Intersection	1	62500	62500	HSIP	Rural	7750	50	State	Keeping	Lighting,
xml	lighting	Numb	0	0	(Sectio	Principal			Highway	vehicles	Pavement
		ers			n 148)	Arterial -			Agency	in the	Treatments
						Other				roadway	
201210001.	Roadside Barrier end	10	41952	41952	HSIP	Urban	3910	65	State	Keeping	Roadside
xml	treatments (crash	Miles	0	0	(Sectio	Principal	0		Highway	vehicles	
	cushions, terminals)				n 148)	Arterial -			Agency	in the	
						Interstate				roadway	

# **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*	2005	2006	2007	2008	2009
Number of fatalities	1335	1253	1164	1077	1010
Number of serious injuries	17816	16834	15708	14571	13260
Fatality rate (per HMVMT)	1.24	1.16	1.09	1.01	0.96
Serious injury rate (per HMVMT)	16.57	15.67	14.71	13.7	12.55

\*Performance measure data is presented using a five-year rolling average.
## Number of Fatalities and Serious injuries for the Last Five Years







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

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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
INTERSTATE	0	0	0	0
URBAN COLLECTOR	0	0	0	0
URBAN COLLECTOR	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



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	0	0	0	0
COUNTY HIGHWAY AGENCY	0	0	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	0	0	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	0	0	0	0
AUTHORITY				
LOCAL TOLL	0	0	0	0
AUTHORITY				
OTHER PUBLIC	0	0	0	0
INSTRUMENTALITY				
(E.G. AIRPORT,				
SCHOOL, UNIVERSITY)				
INDIAN TRIBE NATION	0	0	0	0
OTHER	0	0	0	0
OTHER	0	0	0	0

## Number of Fatalities by Roadway Ownership



Roadway Functional Classification

## Number of Serious Injuries by Roadway Ownership



# Fatality Rate by Roadway Ownership



Roadway Functional Classification

## Serious Injury Rate by Roadway Ownership



This section will be added.

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

IDOT has prepared fatality and serious injury and fatality rate and serious injury rate trend line graphs and bar charts for state and local roadways by emphasis area. These allow us to determine areas of focus for the future and determine areas that are working well.

#### **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)	1.34	1.19	1.13	1	0.98
Serious injury rate (per capita)	9.19	8.69	8.26	7.77	7.19
Fatality and serious injury rate (per capita)	10.52	9.88	9.39	8.77	8.18

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

see attachment FHWA\_HSIP\_OlderDriverPedsHSIP-14-06.xlsx





data Data from 2003 to 2011 was used for this analysis. Therefore this represents rolling averages for years 2005 to 2009.

#### 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: Other-fatalities, serious injuries and fatality rate and serious injury rates are declining based on a 5 year rolling average

#### 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: Other-The systemic approach is used more frequently.

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

There are not significant program changes. Additional emphasis has been placed on the local roadway system and the systemic approach is had more widespread implementation.

## 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
Ensuring drivers are licensed and fully competent		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
Keeping drivers alert		0	0	0	0	0	0	0
Increasing driver safety awareness		0	0	0	0	0	0	0
Increasing seat belt use and improving		0	0	0	0	0	0	0

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airbag effectiveness							
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 motorcycle awareness	0	0	0	0	0	0	0
Making truck travel safer	0	0	0	0	0	0	0
Increasing safety enhancements in vehicles	0	0	0	0	0	0	0
Reducing vehicle-train crashes	0	0	0	0	0	0	0
Keeping vehicles in the roadway	0	0	0	0	0	0	0
Minimizing the consequences of leaving the road	0	0	0	0	0	0	0
Improving the design and operation of	0	0	0	0	0	0	0

highway intersections							
Reducing head-on and across-median crashes	0	0	0	0	0	0	0
Designing safer work zones	0	0	0	0	0	0	0
Enhancing emergency medical capabilities to increase survivability	0	0	0	0	0	0	0
Improving information and decision support systems	0	0	0	0	0	0	0
Creating more effective processes and safety management systems	0	0	0	0	0	0	0









We will continue to calculate and quality control performance measures for tracking trends. This table is currently incomplete.

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
Intersection		0	0	0	0	0	0	0
Sign Replacement And Improvement		0	0	0	0	0	0	0
Segments		0	0	0	0	0	0	0
Local Safety		0	0	0	0	0	0	0
Roadway Departure		0	0	0	0	0	0	0









While we track 5 years of trends we do not typically track 5 year rolling averages for each safety program. This section will be enhanced.

## **Systemic Treatments**

Present the overall effectiveness of systemic treatments..

## Year - 2012

Systemic improvement	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
Data limitations do not allow for some of these calculations.		0	0	0	0	0	0	0








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

We have prepared studies to evaluate the effectiveness of cable median barrier installation and edgeline rumble strips. These detailed studies can be provided if needed.

Research is currently underway to study the effectiveness of flashing yellow arrow and intersection channelization. These results can be provided when they are available.

Wrong way driving systemic improvements are currently being installed. When the countermeasures have been in place for a minimum of three years, we will evaluate their effectiveness and share the results with others to help advance the science of safety and save lives.

Location	Functional	Improvement	Improvement	Bef-	Bef-	Bef-	Bef-	Bef-	Aft-	Aft-	Aft-	Aft-	Aft-	Evaluation
	Class	Category	Туре	Fatal	Serious	Other	PDO	Total	Fatal	Serious	Other	PDO	Total	Results
					Injury	Injury				Injury	Injury			(Benefit/
														Cost Ratio)
Various	Rural	Roadside	Barrier - cable			11		11			0		0	20
	Principal													
	Arterial -													
	Interstate													

Provide project evaluation data for completed projects (optional).

## **Optional Attachments**

Sections

Assessment of the Effectiveness of the Improvements: Description of Overall Effectiveness **Files Attached** 

FHWA\_HSIP\_OlderDriverPedsHSIP-14-06.xlsx

## 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.