



PUERTO RICO

HIGHWAY SAFETY IMPROVEMENT PROGRAM 2017 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

Photo source: Federal Highway Administration

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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.”

Executive Summary

This is the first time that the Puerto Rico Highway and Transportation Authority (PRHTA) submits the Highway Safety Improvement Program (HSIP) report, corresponding to the calendar year 2016. The HSIP is responsible for managing the 25% of federal funds allocated for Puerto Rico under the ZP-30 Fiscal Management Information System program code for highway safety improvement projects. This program does not have any subprogram. The SHSP is a key element of the HSIP in Puerto Rico, coordinating with internal and external partners from all sectors.

In terms of programmed funds, Puerto Rico obligated \$27.2 Million distributed in six (6) highway safety improvement projects. The 22.5% of these projects addressed systemic safety improvements, including signing, pavement marking, traffic signals, and guardrails. The other 77.5% were targeted as hot spot approach procedure. The PRHTA performed engineering studies (assessments and road safety audits), crash data analysis, and others to identify potential countermeasures. In addition, Puerto Rico is participating in the Every Day Counts Federal Highway Administration (FHWA) Program with the Data Driven Safety Analysis initiative. Finally, there is no funds allocated for local or tribal roads and for non-infrastructure projects. Allocating federal funds to enhance highway safety through the State highway system had been resulting positive to reduce the number of fatal and injury crashes in Puerto Rico.

The crash data from 2008 to 2016 shows that Puerto Rico is experiencing an historical reduction in fatalities, with 279 fatalities in 2016. This is the first time that Puerto Rico reported less than 300 fatalities in one year. The combined efforts made by the internal and external partners of the PRHTA had contributed to the reduction in fatalities in Puerto Rico.

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 Reporting Guidance dated December 29, 2016 and consists of five sections: program structure, progress in implementing highway safety improvement projects, progress in achieving safety outcomes and performance targets, effectiveness of the improvements and compliance assessment.

Program Structure

Program Administration

Describe the general structure of the HSIP in the State.

The Puerto Rico Highway and Transportation Authority (PRHTA) manages a Highway Safety Improvement Program (HSIP) focused on the development of safety improvement projects. As part of this program, PRHTA is implementing a Strategic Highway Safety Plan (SHSP) since 2014. PRHTA uses local and federal funds to implement highway safety improvement projects.

Under the title 23 U.S.C. Section 165, Territorial and Puerto Rico Highway Program, Puerto Rico is authorized to receive \$158,000,000 annually for fiscal years 2016 through 2020. The responsible agency for receiving these funds is the PRHTA. From these funds, the Highway Safety Improvement Program (HSIP) is responsible for managing the 25% under the ZP-30 Fiscal Management Information System program code for highway safety improvement projects. Additionally, the PRHTA applies ZP-40 Section 154 Penalty (Open Container Requirements) and ZP-50 Section 164 Penalty (Minimum Penalties for Repeated Offenders) funds to HSIP eligible activities.

The project selection is summarized in the following steps:

1. Crash data collection in the Puerto Rico Department of Transportation and Public Works (PRDTPW).
2. Development of the High Crash Location (HCL) Report. In this report, the PRHTA establishes the list of high crash locations by corridors, segments, and intersections.
3. Evaluations of the high crash locations identified to determine the highway safety improvement projects to be included in the Statewide Transportation Improvement Program (STIP). Those projects are divided into systemic or hot spot approach. This evaluation considers the use of funds through to the five (5) PRHTA Regions.

Where is HSIP staff located within the State DOT?

Engineering

Enter additional comments here to clarify your response for this question or add supporting information.

How are HSIP funds allocated in a State?

Other-Allocated programs

Enter additional comments here to clarify your response for this question or add supporting information.

The Highway Safety Improvement Program (HSIP) is responsible for managing the 25% under the ZP-30 Fiscal Management Information System program code for highway safety improvement projects.

Describe how local and tribal roads are addressed as part of HSIP.

Puerto Rico does not have tribal roads, thus is not applicable. In Puerto Rico, local roads are addressed by municipalities. As part of the Strategic Highway Safety Plan (SHSP) the municipalities are invited to participate in the emphasis area discussion to provide information about the highway safety of their roads. If there is a safety problem in the local roads, Puerto Rico Highway and Transportation Authority provide technical resources to find countermeasures and encourage a reduction in the severe crashes.

Identify which internal partners (e.g., State departments of transportation (DOTs) Bureaus, Divisions) are involved with HSIP planning.

Traffic Engineering/Safety
Design
Planning
Operations

Enter additional comments here to clarify your response for this question or add supporting information.

Describe coordination with internal partners.

The PRHTA Office Directors held several meeting to coordinate the selection and integration of their programs using a data driven process. Some of the internal partners are Planning and Programming Area, Design Area, Traffic Engineering and Operations Area, among others.

Identify which external partners are involved with HSIP planning.

Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
Governors Highway Safety Office
Local Technical Assistance Program
Local Government Agency
Law Enforcement Agency
Academia/University

Enter additional comments here to clarify your response for this question or add supporting information.

Describe coordination with external partners.

As part of the Puerto Rico SHSP, the external partners have the opportunity to discuss and participate in quarterly meetings and road safety audits, among other events. Through the Emphasis Areas Teams Meetings (i.e. roadway departure, vulnerable road users, intersections, etc.) these partners collaborate in the progress of the Puerto Rico SHSP. In addition, some of them participate in the road safety audits (RSA) supporting the decision-making processes of the highway safety improvement projects. The development and implementation of the Puerto Rico SHSP is funded through the HSIP.

The PRHTA (HSIP) coordinates with the Puerto Rico Traffic Safety Commission (PRTSC) and the Automobile Accident Compensation Administration (ACAA, by its Spanish Acronym) the crash data used to establish performance measures and the data-driven highway safety improvement projects. The PRTSC is responsible of managing the Puerto Rico FARS data through the Planning Area and for the CARE software (software created to access and analyze the Puerto Rico crash data) developed by the University of Alabama and managed by the University of Puerto Rico. The ACAA provides the number of injured people that were transported in an ambulance because of a traffic crash.

The Puerto Rico Police Department (PRPD) and the Puerto Rico Emergency Medical Services (CEMPR, by its Spanish acronym) coordinate with the PRHTA (HSIP) to establish two Traffic Management Centers in the country. In addition, the PRHTA coordinate with the PRPD and municipalities the use of the SHSP's High Crash Location Report, where the most hazardous roadways in Puerto Rico are identified to target their enforcement activities and police patrol plans, educational campaigns, project planning, and road maintenance activities.

The third-sector, composed by non-profit organizations and the academia, have an important role in the Puerto Rico roadway safety. In order to establish a formal coalition to enhance their capabilities in promoting public policies and educational campaigns towards the improvements in mobility, accessibility, and safety, five non-profit organizations joined efforts; AARP Puerto Rico, MAPFRE Foundation, the Puerto Rico Section of the Institute of Transportation Engineers (ITE), MAVI (organization for people with disabilities), and RUeDa (cyclists organization) founded ALIANZA (Spanish name of the coalition). The HSIP promote this alliance by encouraging them to unite efforts and providing technical references for their studies (i.e. statistical crash analysis and profile of pedestrian crashes).

Have any program administration practices used to implement the HSIP changed since the last reporting period?

No

Are there any other aspects of HSIP Administration on which the State would like to elaborate?

Yes

Describe other aspects of HSIP Administration on which the State would like to elaborate.

This is the first time that Puerto Rico submit an HSIP Annual Report.

Program Methodology

Does the State have an HSIP manual or similar that clearly describes HSIP planning, implementation and evaluation processes?

No

Enter additional comments here to clarify your response for this question or add supporting information.

Puerto Rico is planning to develop the HSIP manual during next calendar year including the planning, implementation and evaluation processes. As part of the manual development, Puerto Rico will study lessons learned from other States and existing technical documents to accelerate the process.

Select the programs that are administered under the HSIP.

HSIP (no subprograms)

Enter additional comments here to clarify your response for this question or add supporting information.

Program: HSIP (no subprograms)

Date of Program Methodology: 7/1/2016

What is the justification for this program? [Check all that apply]

Addresses SHSP priority or emphasis area
FHWA focused approach to safety

What is the funding approach for this program? [Check one]

Funding set-aside

What data types were used in the program methodology? [Check all that apply]

Crashes	Exposure	Roadway
Fatal and serious injury crashes only	Lane miles	Functional classification

What project identification methodology was used for this program? [Check all that apply]

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Crash frequency

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

No

Are local road projects identified using the same methodology as state roads?

Describe the methodology used to identify local road projects as part of this program.

How are projects under this program advanced for implementation?

selection committee

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

Available funding : 100

Total Relative Weight : 100

Enter additional comments here to clarify your response for this question or add supporting information.

What percentage of HSIP funds address systemic improvements?

22.5

HSIP funds are used to address which of the following systemic improvements? Please check all that apply.

- Rumble Strips
- Install/Improve Signing
- Install/Improve Pavement Marking and/or Delineation
- Upgrade Guard Rails
- Add/Upgrade/Modify/Remove Traffic Signal
- High friction surface treatment

Enter additional comments here to clarify your response for this question or add supporting information.

What process is used to identify potential countermeasures? [Check all that apply]

Engineering Study
Road Safety Assessment
Crash data analysis
SHSP/Local road safety plan
Stakeholder input

Enter additional comments here to clarify your response for this question or add supporting information.

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

Describe how the State HSIP considers connected vehicles and ITS technologies.

PRHTA designed with local funds, and obligated with HISP funds, a traffic signal installation with preemption technology to prioritize the fire fighters vehicles through an intersection.

Does the State use the Highway Safety Manual to support HSIP efforts?

Yes

Please describe how the State uses the HSM to support HSIP efforts.

The PRHTA used the HSM as a reference to develop current procedures to determine the high crash locations, perform the Before and After studies, and develop the Puerto Rico Crash Modification Factors database. The PRHTA methodology for determining the high crash locations (HCL report) includes a Crash Cost Factor and a Frequency Index, corresponding to the Crash Rate and Severity Index presented in the HSM. PRHTA have being unable to use the HSM in the full extends because the KABCO injury classification is not implemented in Puerto Rico and the traffic data is very limited. The crash costs used for determining the CCF and for the justification of highway safety improvement projects are those included in the HSM. Currently, the process for performing the Before and After studies was based on the process contained in the HSM, except for those elements that were limited by the local available data. PRHTA is engaged in using the HSM to the full extends in the near future. To achieve this goal, PRHTA is participating in the Data-Driven Safety Analysis FHWA Initiative. The series of workshops to enhance the technical knowledge of the professional community (internal and external) on the application of the HSM in Puerto Rico is provided by the EDC Initiative.

Have any program methodology practices used to implement the HSIP changed since the last reporting period?

No

Are there any other aspects of the HSIP methodology on which the State would like to elaborate?

Yes

Describe other aspects of the HSIP methodology on which the State would like to elaborate.

PRHTA and FHWA coordinated the following workshops and trainings to provide continuing education state safety stakeholders:

1. Road Diets Concepts Training provided by Brooke Struve and Keith Sinclair on October 11 and 12, 2016. Engineers, planners, and designers from public, private, and municipalities participated in the training. The activity was organized by FHWA, PRHTA, and the Puerto Rico Local Technical Assistance Program (PRLTAP) personnel.
2. Bicycle Facilities Design Workshop provided by Brooke Struve and Keith Sinclair on October 13, 2016. Engineers, planners, and designers from public, private, and municipalities participated in the training. The activity was organized by FHWA, PRHTA, and the Puerto Rico Local Technical Assistance Program (PRLTAP) personnel.

In addition, PRHTA personnel from the Highway Safety Division, Material Testing Advisory Office, and Pavement Management Office participated in a peer-to-peer workshop on July 19 and 20, 2016 in Nashville, Tennessee. The main topic of the workshop was the selection, evaluation, and application of High Friction Surface Treatment.

As part of the development of the Pedestrian and Cyclist Action Plan and Complete Street Development Plan, PRHTA performed four (4) open houses to discuss with the citizens the needs and strategies to be included in both plans. The activities were developed in the municipalities of San Juan, Aguadilla, Ponce, and Fajardo. The development of those plans is important because Puerto Rico is a pedestrian-bicycle focus state.

Two important elements of the Strategic Highway Safety Plan (SHSP) are the Safety Summit and the Action Plan. Both bring opportunities to share the progress of the HSIP to the state safety stakeholders. Typically, the Safety Summit occurs in November with the participation over 100 persons from the public, private, and non-profit organizations. The Action Plan establishes the annual route of project delivery for the SHSP, including the distribution of HSIP project by Emphasis Areas.

Currently, Puerto Rico is participating in the FHWA's Every Day Counts (EDC) initiative, where data-driven safety analysis is one of the recommended initiatives to identify and select highway safety projects in the PRHTA. As part of the EDC Program Action Plan, PRHTA will provide training and workshops about the Highway Safety Manual and data-driven safety analysis methodologies. Next year, a data-driven process can be used to select the highway safety projects.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

Calendar Year

Enter additional comments here to clarify your response for this question or add supporting information.

Year: 2016

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	\$31,475,000	\$32,887,102	104.49%
HRRR Special Rule (23 U.S.C. 148(g)(1))	\$0	\$0	0%
Penalty Funds (23 U.S.C. 154)	\$1,600,000	\$2,010,305	125.64%
Penalty Funds (23 U.S.C. 164)	\$1,600,000	\$2,010,305	125.64%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	\$0	\$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	\$0	\$0	0%
State and Local Funds	\$0	\$0	0%
Totals	\$34,675,000	\$36,907,712	106.44%

Enter additional comments here to clarify your response for this question or add supporting information.

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

\$0

How much funding is obligated to local or tribal safety projects?

\$0

Enter additional comments here to clarify your response for this question or add supporting information.

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

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\$0

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

\$0

Enter additional comments here to clarify your response for this question or add supporting information.

How much funding was transferred in to the HSIP from other core program areas during the reporting period under 23 U.S.C. 126?

\$0

How much funding was transferred out of the HSIP to other core program areas during the reporting period under 23 U.S.C. 126?

\$0

Enter additional comments here to clarify your response for this question or add supporting information.

Discuss impediments to obligating HSIP funds and plans to overcome this challenge in the future.

There was no impediment to obligate the HSIP funds in this period.

Does the State want to elaborate on any other aspects of it's progress in implementing HSIP projects?

Yes

Describe any other aspects of the State's progress in implementing HSIP projects on which the State would like to elaborate.

PRHTA is developing a highway safety culture by including highway safety improvement in all projects independently of the project scope and the corresponding allocated program.

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General Listing of Projects

List the projects obligated using HSIP funds for the reporting period.

													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
Safety Improvements at PR-10. From km 0 to 29.8	Roadside	Barrier end treatments (crash cushions, terminals)	42	Numbers	\$13938451.20	\$14325852	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	26,770	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Improvements at PR-10. From km 0 to 29.8	Roadside	Barrier transitions	34	Numbers	\$13938451.20	\$14325852	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	26,770	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Improvements at PR-10. From km 0 to 29.8	Roadside	Barrier- metal	16	Miles	\$13938451.20	\$14325852	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	26,770	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Improvements at PR-10. From km 0 to 29.8	Roadway	Pavement surface - high friction surface	1	Locations	\$13938451.20	\$14325852	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	26,770	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Improvements at PR-10. From km 0 to 29.8	Roadway	Rumble strips - edge or shoulder	19	Miles	\$13938451.20	\$14325852	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	26,770	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
Safety Improvements at PR-10. From km 0 to 29.8	Roadway	Rumble strips - center	9	Miles	\$13938451.20	\$14325852	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	26,770	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Improvements at PR-10. From km 0 to 29.8	Roadway delineation	Longitudinal pavement markings - remarking	18	Miles	\$13938451.20	\$14325852	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	26,770	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Improvements at PR-10. From km 0 to 29.8	Roadway delineation	Raised pavement markers	18	Miles	\$13938451.20	\$14325852	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	26,770	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Improvements at PR-10. From km 0 to 29.8	Roadway signs and traffic control	Roadway signs (including post) - new or updated	450	Numbers	\$13938451.20	\$14325852	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	26,770	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Improvements at PR-10. From km 0 to 29.8	Intersection traffic control	Modify traffic signal - modernization/replacement	2	Numbers	\$13938451.20	\$14325852	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	26,770	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Pedestrian Bridge Los Prados PR-181 with Julio Andino street.	Pedestrians and bicyclists	Pedestrian bridge	1	Numbers	\$3258361.2	\$3571543.2	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	47,100	45	State Highway Agency	Spot	Pedestrians	Support & encourage safe bicycling and walking with the implementation of

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														planning and engineering measures.
Pedestrian Bridge Los Prados PR-181 with Julio Andino street.	Roadway delineation	Longitudinal pavement markings - remarking	0.3	Miles	\$3258361.2	\$3571543.2	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	47,100	45	State Highway Agency	Spot	Pedestrians	Support & encourage safe bicycling and walking with the implementation of planning and engineering measures.
Pedestrian Bridge Los Prados PR-181 with Julio Andino street.	Roadway delineation	Raised pavement markers	0.3	Miles	\$3258361.2	\$3571543.2	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	47,100	45	State Highway Agency	Spot	Pedestrians	Support & encourage safe bicycling and walking with the implementation of planning and engineering measures.
Pedestrian Bridge Los Prados PR-181 with Julio Andino street.	Roadway signs and traffic control	Roadway signs (including post) - new or updated	27	Numbers	\$3258361.2	\$3571543.2	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	47,100	45	State Highway Agency	Spot	Pedestrians	Support & encourage safe bicycling and walking with the implementation of planning and engineering measures.
Pedestrian Bridge Los Prados PR-181 with Julio Andino street.	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Numbers	\$3258361.2	\$3571543.2	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	47,100	45	State Highway Agency	Spot	Pedestrians	Support & encourage safe bicycling and walking with the implementation of planning and engineering measures.
Roundabout on PR-140 intersection with PR-642 (Florida).	Intersection traffic control	Modify control - modifications to roundabout	1	Numbers	\$4413999.6	\$4805249	HSIP (23 U.S.C. 148)	Rural Minor Arterial	8,000	25	State Highway Agency	Systemic	Intersections	Promote the use of innovative and proven geometric safety improvements.
Traffic Signal Installation intersection of PR-203 with PR-183.	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Numbers	\$1532681.95	\$1561541.95	Penalty Funds (23 U.S.C. 164)	Rural Principal Arterial - Other	16,000	40	State Highway Agency	Spot	Intersections	Upgrade existing and/or install new traffic control devices to provide prioritized access for emergency vehicles.
Upgrade traffic signal system PR-1 from intersection with Pershing Street to intersection with San Antonio Bridge.	Intersection traffic control	Modify traffic signal - modernization/replacement	7	Numbers	\$1419426	\$1923969.6	Penalty Funds (23 U.S.C. 154)	Urban Principal Arterial - Other	25,000	35	State Highway Agency	Systemic	Intersections	Promote ITS technologies to improve safe operations at intersections.

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	RELATIONSHIP TO SHSP	
													EMPHASIS AREA	STRATEGY
Upgrade traffic signal system PR-1 from intersection with Pershing Street to intersection with San Antonio Bridge.	Roadway signs and traffic control	Roadway signs (including post) - new or updated	54	Numbers	\$1419426	\$1923969.6	Penalty Funds (23 U.S.C. 154)	Urban Principal Arterial - Other	25,000	35	State Highway Agency	Systemic	Intersections	Promote ITS technologies to improve safe operations at intersections.
Upgrade traffic signal system PR-1 from intersection with Pershing Street to intersection with San Antonio Bridge.	Roadway delineation	Longitudinal pavement markings - remarking	1.5	Miles	\$1419426	\$1923969.6	Penalty Funds (23 U.S.C. 154)	Urban Principal Arterial - Other	25,000	35	State Highway Agency	Systemic	Intersections	Promote ITS technologies to improve safe operations at intersections.
Upgrade traffic signal system PR-1 from intersection with Pershing Street to intersection with San Antonio Bridge.	Roadway delineation	Raised pavement markers	1.5	Miles	\$1419426	\$1923969.6	Penalty Funds (23 U.S.C. 154)	Urban Principal Arterial - Other	25,000	35	State Highway Agency	Systemic	Intersections	Promote ITS technologies to improve safe operations at intersections.
Safety Corridor PR-188. From intersection with PR-3 (Canóvanas) to intersection with PR-187 (Loiza)	Roadside	Barrier end treatments (crash cushions, terminals)	6	Numbers	\$3491516.8	\$4295435.81	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	20,000	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Corridor PR-188. From intersection with PR-3 (Canóvanas) to intersection with PR-187 (Loiza)	Roadside	Barrier transitions	12	Numbers	\$3491516.8	\$4295435.81	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	20,000	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Corridor PR-188. From intersection with PR-3 (Canóvanas) to intersection with PR-187 (Loiza)	Roadside	Barrier- metal	1.2	Miles	\$3491516.8	\$4295435.81	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	20,000	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.

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													RELATIONSHIP TO SHSP	
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
Safety Corridor PR-188. From intersection with PR-3 (Canóvanas) to intersection with PR-187 (Loiza)	Roadway	Rumble strips - edge or shoulder	1.7	Miles	\$3491516.8	\$4295435.81	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	20,000	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Corridor PR-188. From intersection with PR-3 (Canóvanas) to intersection with PR-187 (Loiza)	Roadway	Rumble strips - center	1.7	Miles	\$3491516.8	\$4295435.81	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	20,000	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Corridor PR-188. From intersection with PR-3 (Canóvanas) to intersection with PR-187 (Loiza)	Roadway delineation	Longitudinal pavement markings - remarking	4.3	Miles	\$3491516.8	\$4295435.81	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	20,000	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Corridor PR-188. From intersection with PR-3 (Canóvanas) to intersection with PR-187 (Loiza)	Roadway delineation	Raised pavement markers	4.3	Miles	\$3491516.8	\$4295435.81	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	20,000	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Corridor PR-188. From intersection with PR-3 (Canóvanas) to intersection with PR-187 (Loiza)	Roadway signs and traffic control	Roadway signs (including post) - new or updated	150	Numbers	\$3491516.8	\$4295435.81	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	20,000	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Safety Corridor PR-188. From intersection with PR-3 (Canóvanas) to	Intersection traffic control	Modify traffic signal - modernization/replacement	4	Numbers	\$3491516.8	\$4295435.81	HSIP (23 U.S.C. 148)	Rural Principal Arterial - Other	20,000	45	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-

2017 Puerto Rico Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	RELATIONSHIP TO SHSP	
													EMPHASIS AREA	STRATEGY
intersection with PR-187 (Loiza)														objects located within roadside clear recovery area in accordance with current standards.
Managed Lines or Dynamic Toll Lanes PR-52	Roadway	Roadway widening - add lane(s) along segment	2	Lanes	\$4516777.20	\$37644664.5	HSIP (23 U.S.C. 148)	Urban Principal Arterial - Interstate	105,000	55	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.
Managed Lines or Dynamic Toll Lanes PR-18 km 4.7 to 6.4	Roadway	Roadway widening - add lane(s) along segment	2	Lanes	\$4132971.00	\$31919997	HSIP (23 U.S.C. 148)	Urban Principal Arterial - Interstate	110,000	55	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects located within roadside clear recovery area in accordance with current standards.

Enter additional comments here to clarify your response for this question or add supporting information.

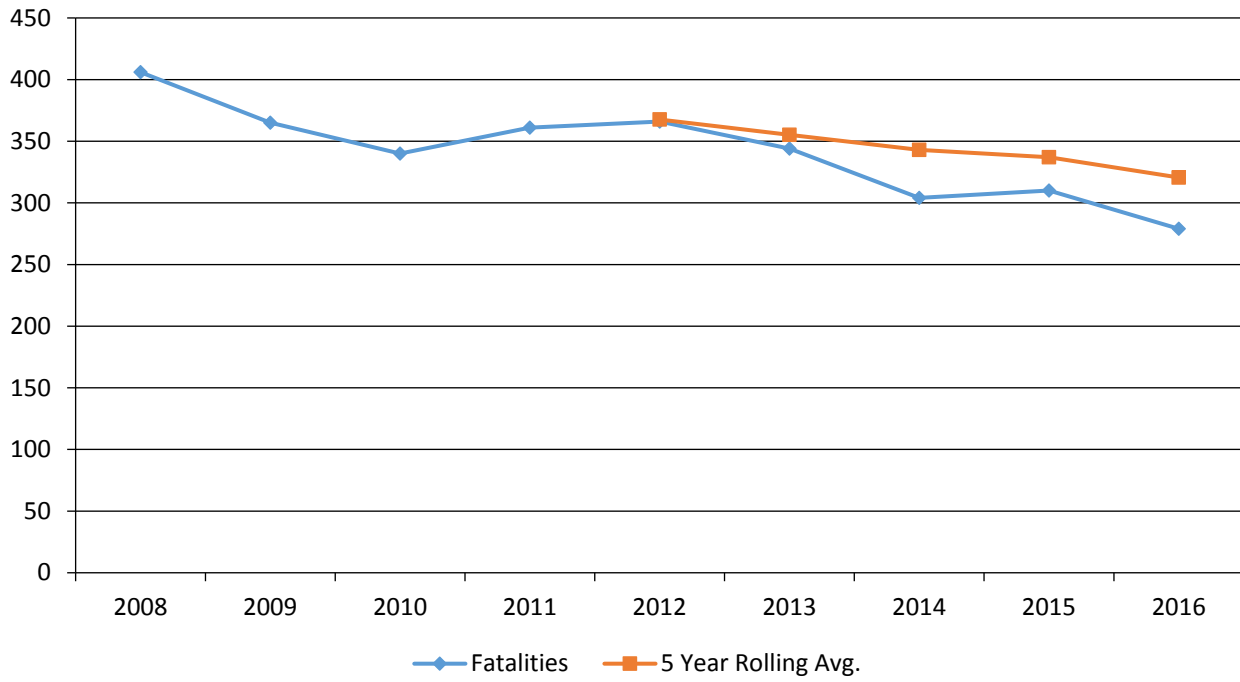
Safety Performance

General Highway Safety Trends

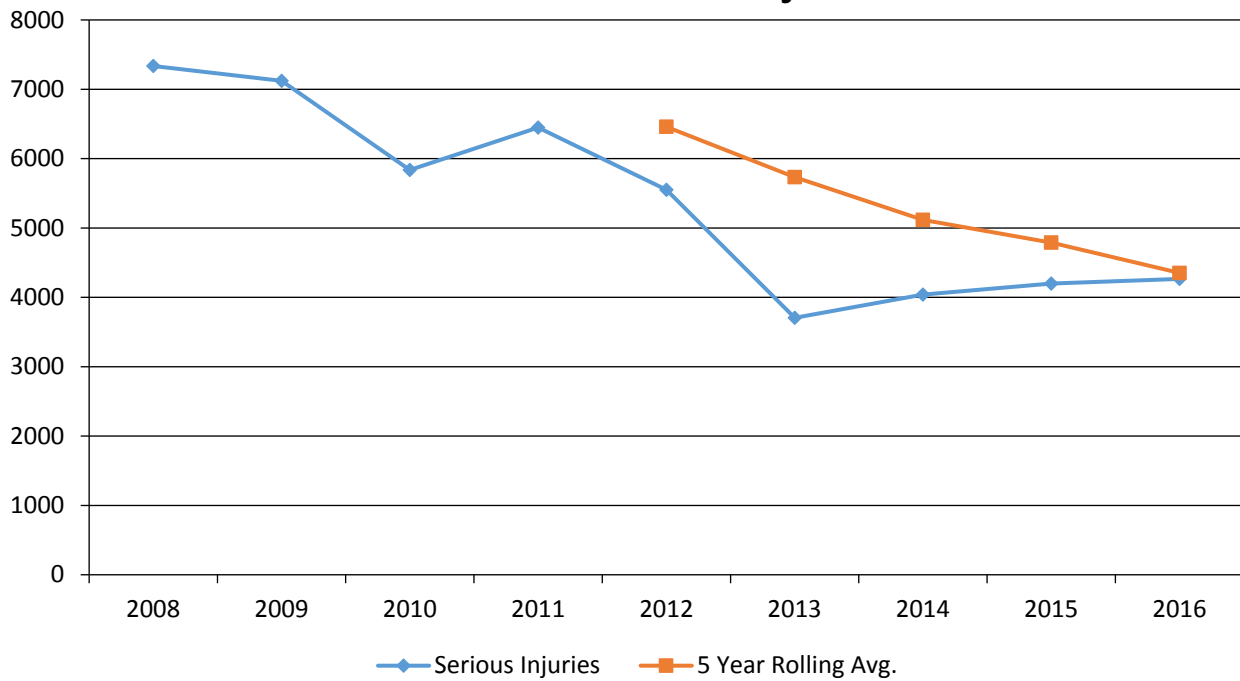
Present data showing the general highway safety trends in the State for the past five years.

PERFORMANCE MEASURES	2008	2009	2010	2011	2012	2013	2014	2015	2016
Fatalities	406	365	340	361	366	344	304	310	279
Serious Injuries	7,336	7,122	5,838	6,449	5,551	3,705	4,040	4,199	4,267
Fatality rate (per HMVMT)	2.090	1.920	1.830	1.960	2.010	1.900	1.690	1.740	1.620
Serious injury rate (per HMVMT)	37.760	37.460	31.440	35.070	30.530	20.480	22.520	23.630	24.710
Number non-motorized fatalities	140	126	116	118	128	98	107	112	98
Number of non-motorized serious injuries	817	871	732	864	631	431	478	400	369

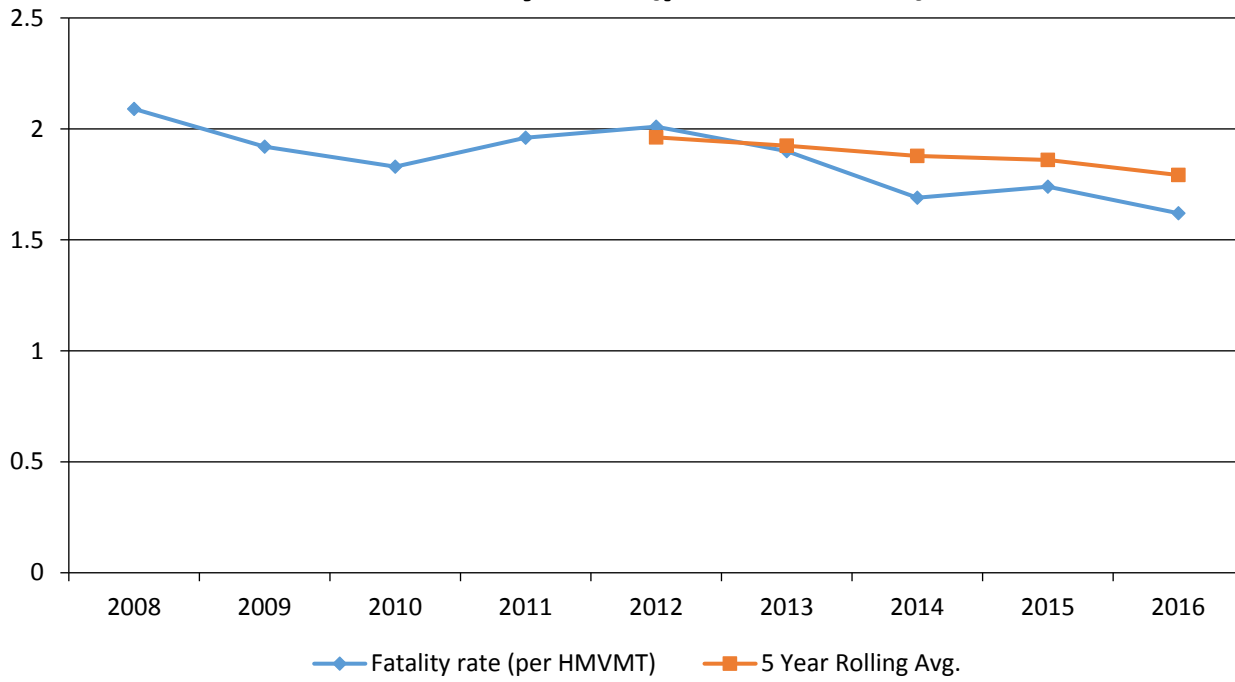
Annual Fatalities



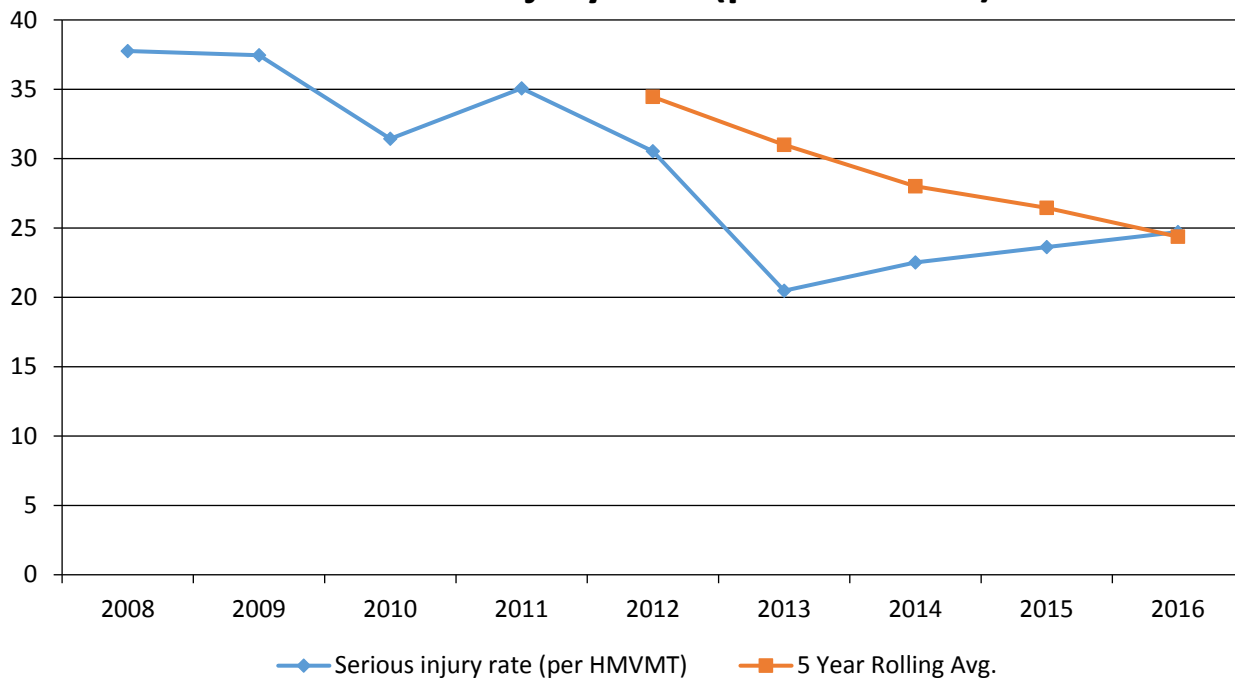
Annual Serious Injuries



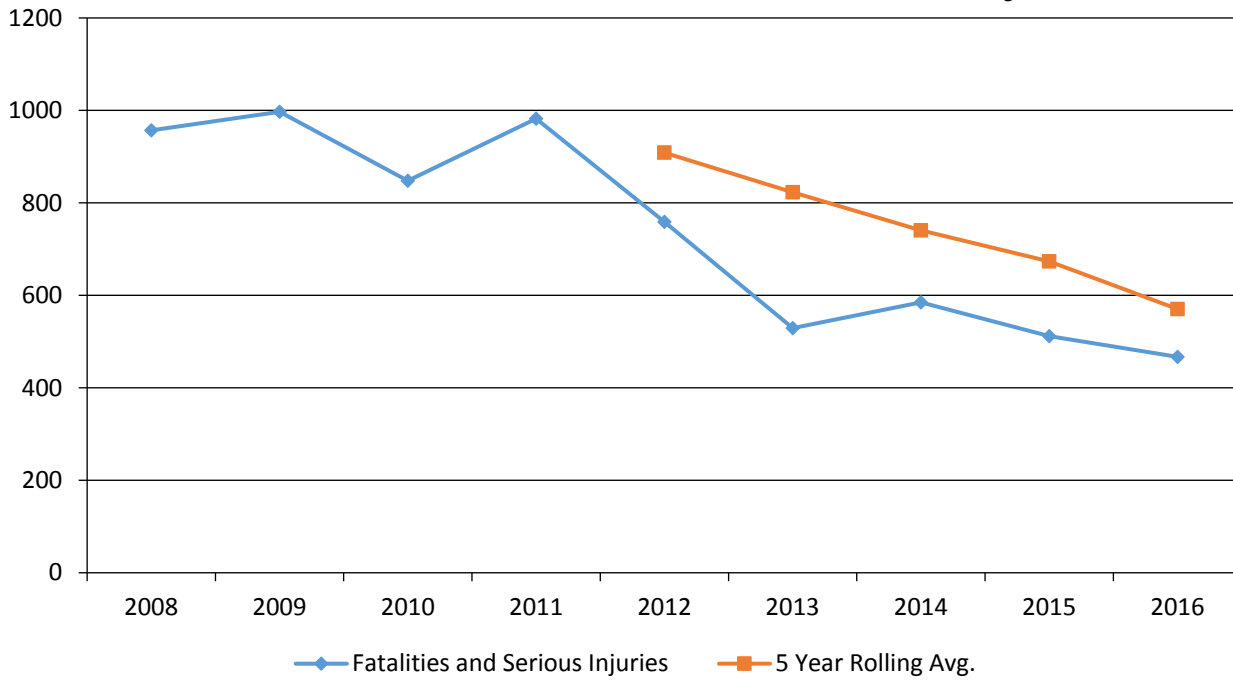
Fatality rate (per HMVMT)



Serious injury rate (per HMVMT)



Non Motorized Fatalities and Serious Injuries



Enter additional comments here to clarify your response for this question or add supporting information.

Describe fatality data source.

FARS

Enter additional comments here to clarify your response for this question or add supporting information.

To the maximum extent possible, present this data by functional classification and ownership.

Year 2016

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
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

2017 Puerto Rico Highway Safety Improvement Program

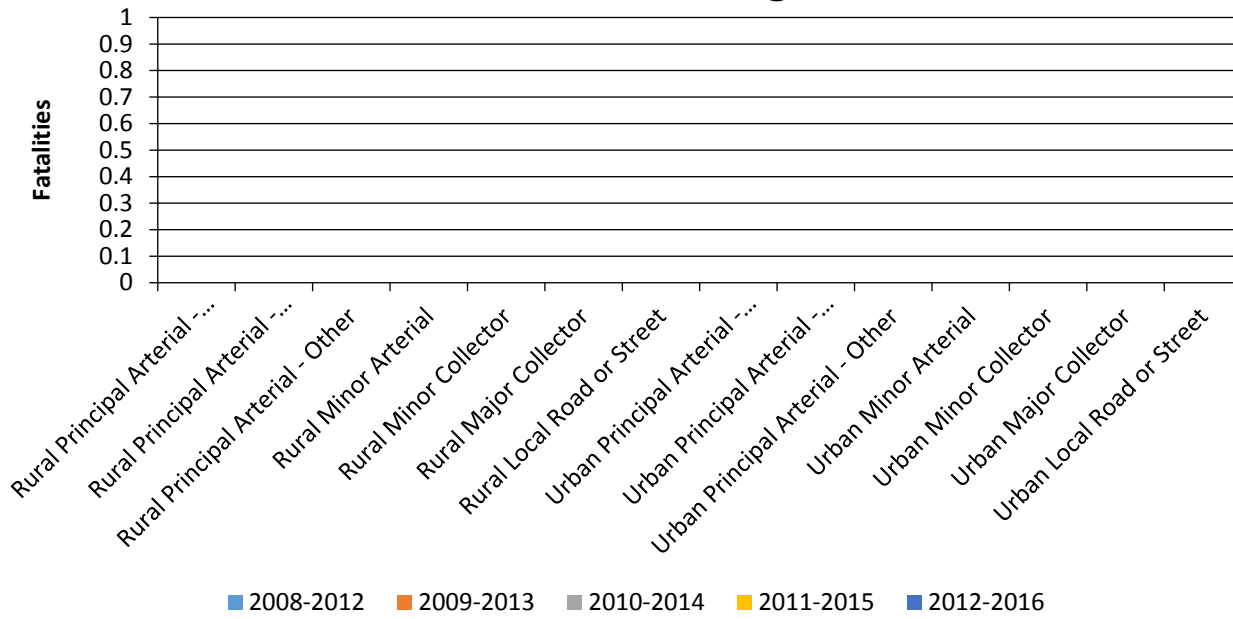
Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Minor Collector	0	0	0	0
Rural Major Collector	0	0	0	0
Rural Local Road or Street	0	0	0	0
Urban Principal Arterial - Interstate	0	0	0	0
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

2017 Puerto Rico Highway Safety Improvement Program

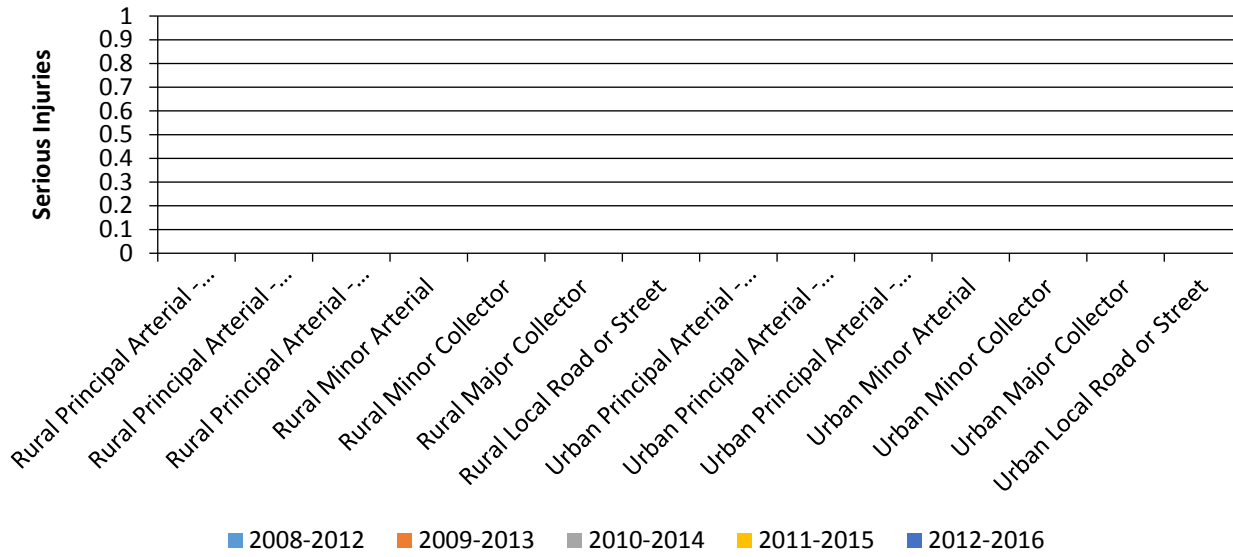
Year 2016

Roadways	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
State Highway Agency	287.4	3,996.2	1.61	22.37
County Highway Agency	0	0	0	0
Town or Township Highway Agency	0	0	0	0
City of Municipal Highway Agency	33.2	356.2	0.19	1.99
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

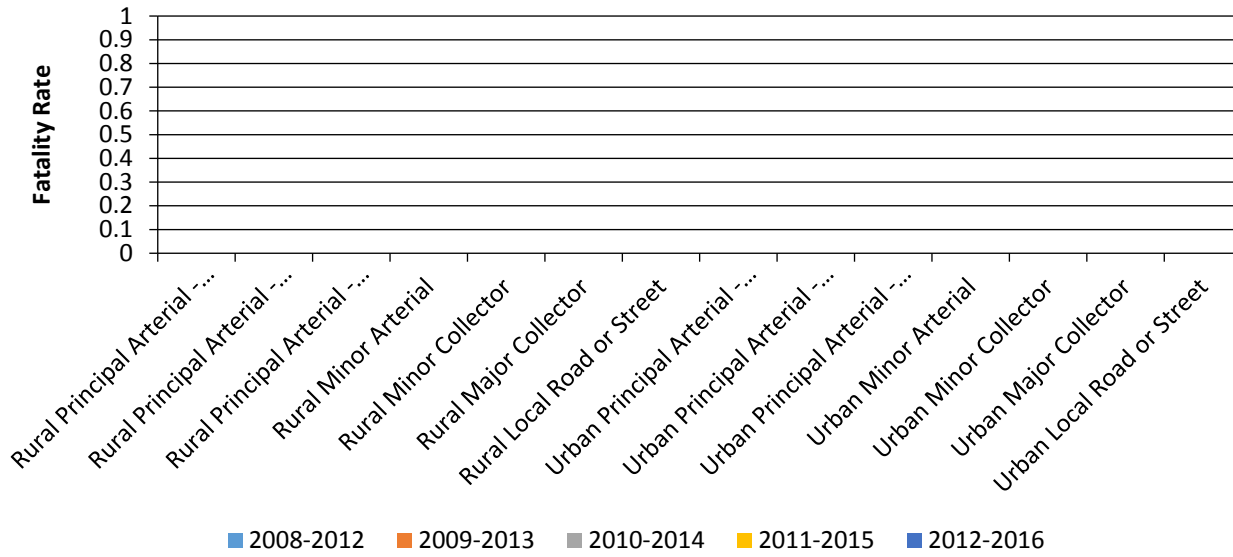
Number of Fatalities by Functional Classification 5 Year Average



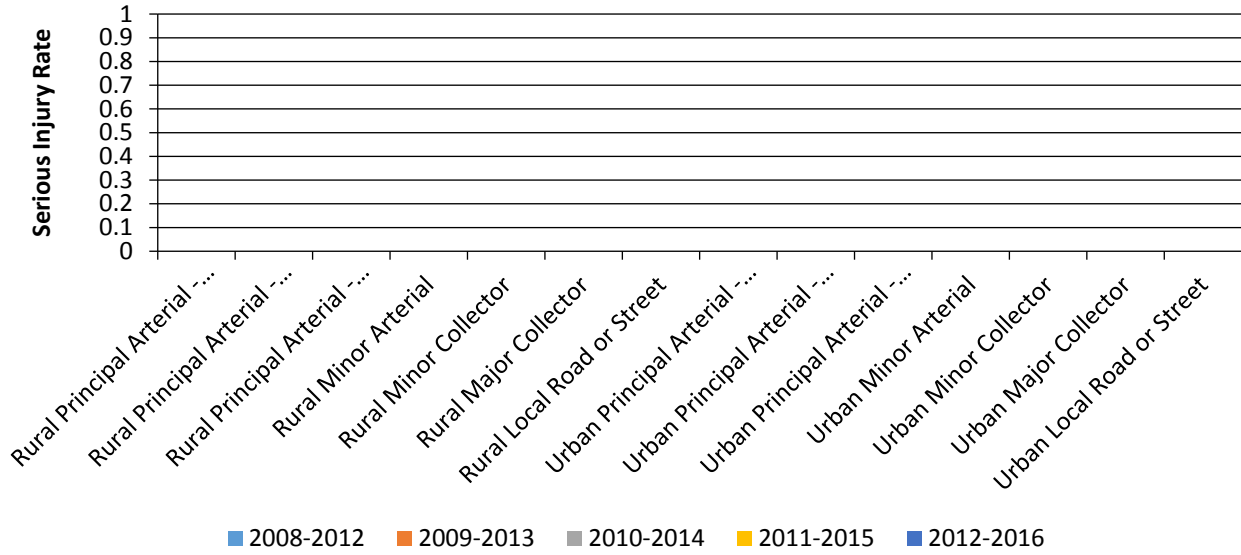
Number of Serious Injuries by Functional Classification 5 Year Average



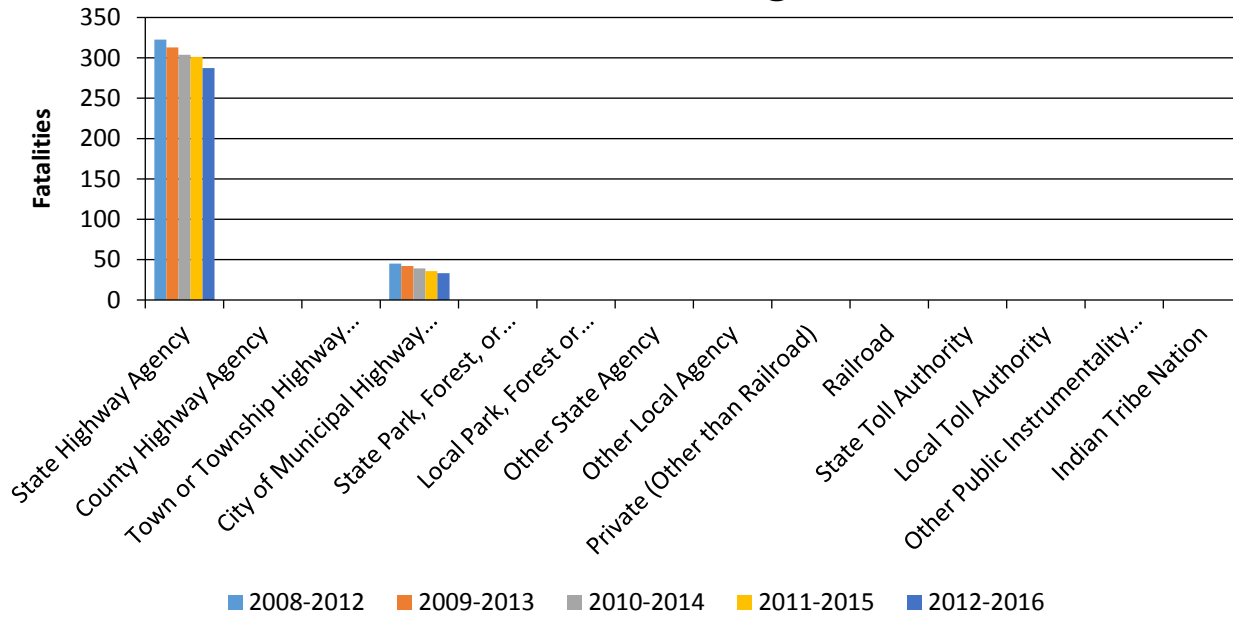
Fatality Rate (per HMVMT) by Functional Classification 5 Year Average



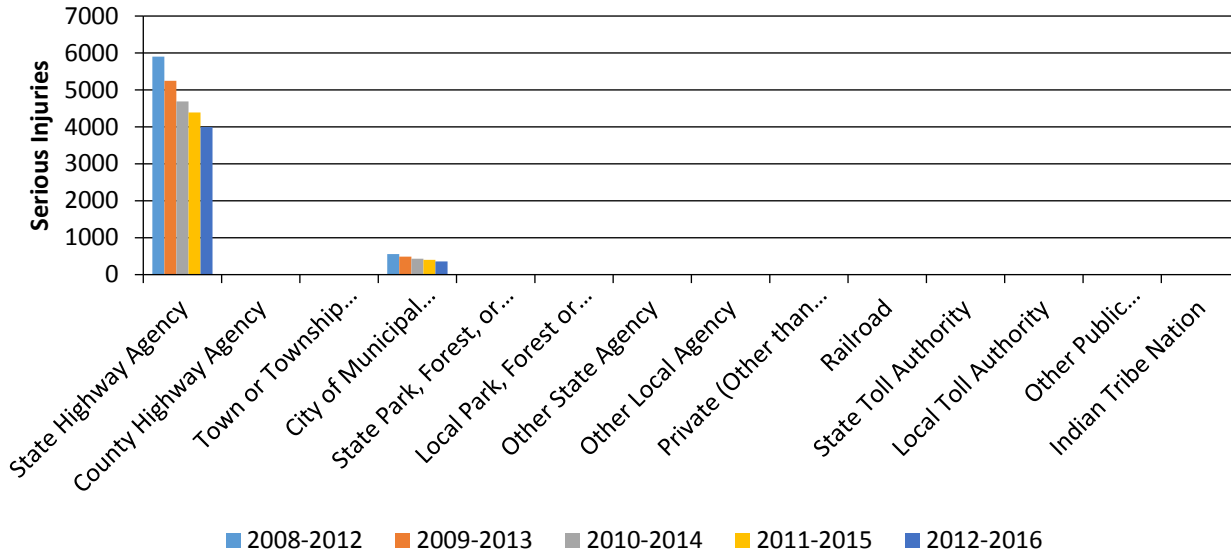
Serious Injury Rate (per HMVMT) by Functional Classification 5 Year Average



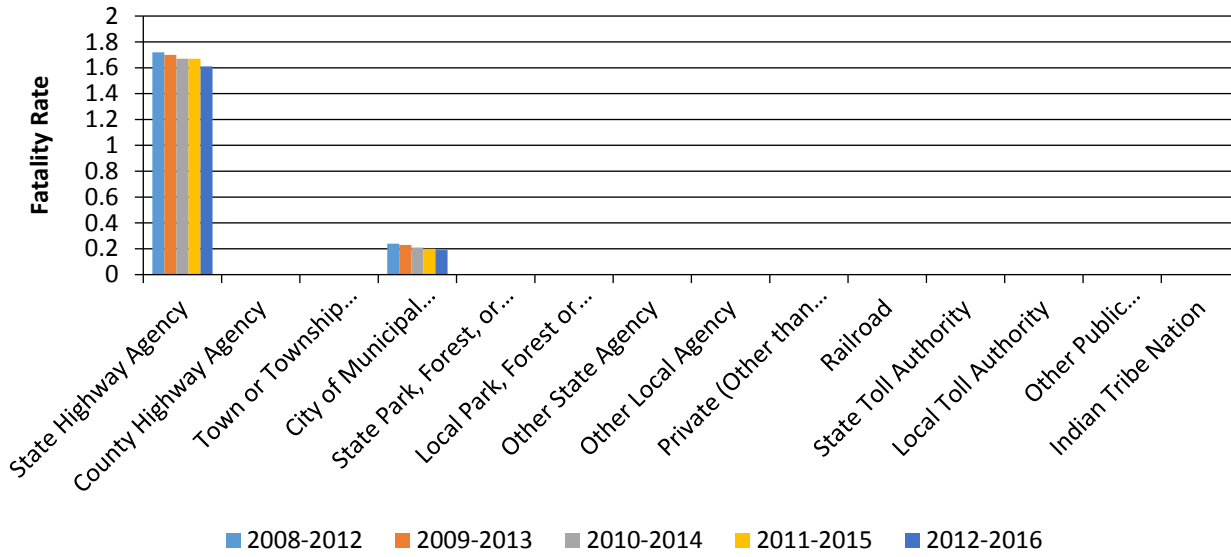
Number of Fatalities by Roadway Ownership 5 Year Average



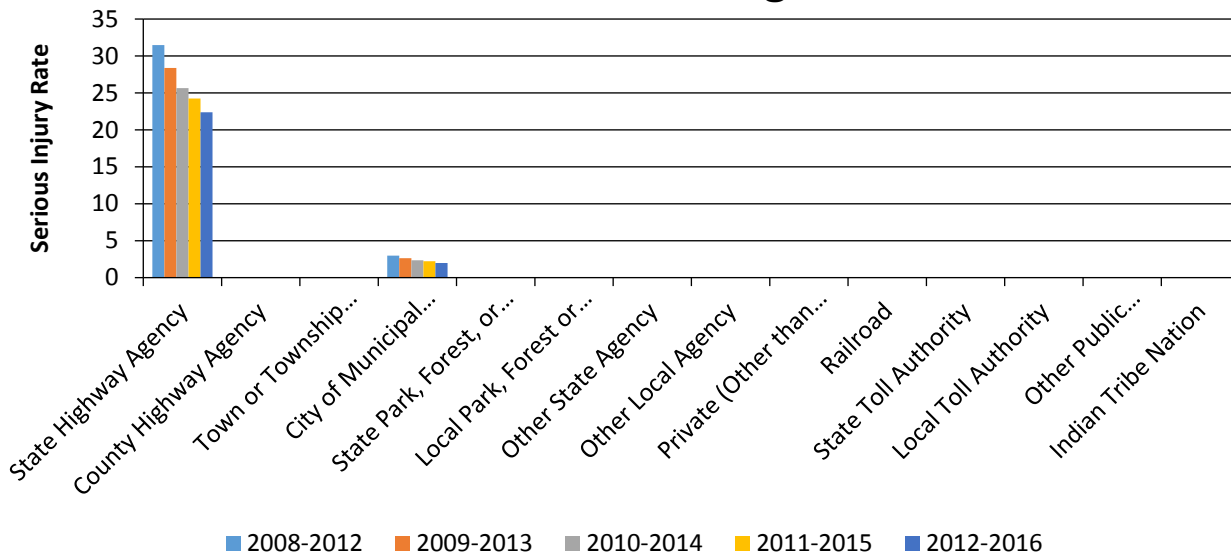
Number of Serious Injuries by Roadway Ownership 5 Year Average



Fatality Rate (per HMVMT) by Roadway Ownership 5 Year Average



Serious Injury Rate (per HMVMT) by Roadway Ownership Ownership 5 Year Average



Enter additional comments here to clarify your response for this question or add supporting information.

There are no values included in the table because Puerto Rico crash database does not provide information of functional classification per highway. In the roadway ownership table, Puerto Rico includes available data of state and local roads. Other categories are not included in the Puerto Rico crash database or are not applicable in our system.

Are there any other aspects of the general highway safety trends on which the State would like to elaborate?

Yes

Provide additional discussion related to general highway safety trends.

The state would like to elaborate in the topic of the Puerto Rico Vehicles Miles Traveled (VMT) and the non-compliance with the KABCO injury classification scale in the police crash report PPR-93. The VMT used in the crash rate calculation is the reported by the Puerto Rico Highway Performance Monitoring System Office. Those VMT values does not match with VMT reported by FHWA because an internal problem with the HPMS reporting software. The HPMS Puerto Rico Office is working together with the FHWA to fix this problem.

About the injury classification scale the Puerto Rico Police Department (PRDP) current crash report (PPR-93) does not comply with KABCO. The PRDP is working with an updated version of the PPR-93 that will include the KABCO injury classification scale as one of the fields. Is the same scenario with serious injuries definition based in the MMUCC. Currently, the MMUCC definition will be included in the updated version of the PPR-93 (crash report).

Calendar Year 2018 Targets *

Number of Fatalities 293.0

Describe the basis for established target, including how it supports SHSP goals.

The database used to establish the target for the number of fatalities was from FARS. The years considered during the analysis were from 2007 to 2016. To obtain the number of fatalities for 2018, the Puerto Rico SHSP and the PRTSC decided to set the expected fatalities to 290 for 2017. This is because the highway safety agencies took in consideration the regression-to-the-mean effect in the 2017 fatalities based in the historical trends of the Puerto Rico fatalities. After having the 2017 number of fatalities set to 290, it was used and analyzed several trendline options (i.e. exponential, linear, logarithmic, polynomial, and power) to project the number fatalities to 2018. After have been selected a polynomial trendline of second order with a R2 of 88.6%, the 5-year moving average safety performance target for the number of fatalities was projected to 293.0.

Number of Serious Injuries 4074.0

Describe the basis for established target, including how it supports SHSP goals.

The database used to establish the target for the number of serious injuries was from ACAA (Automobile Accident Compensation Administration). The years considered during the analysis were from 2007 to 2016. To obtain the safety performance target for serious injuries it was used and analyzed several trendline options (i.e. exponential, linear, logarithmic, polynomial, and power) to project the serious injuries to 2018. After have been selected a power trendline with a R2 of 84.5%, the safety performance target for the number of serious injuries was projected to 3,882.9 and the 5-year moving average to 4,074.0, both for 2018.

Fatality Rate 1.690

Describe the basis for established target, including how it supports SHSP goals.

The databases used to establish the target for the fatality rate were from FARS and the Puerto Rico HPMS Office. The years considered during the analysis were from 2007 to 2016 for FARS and from 2007 to 2015 for the Vehicle Miles Traveled (VMT) of the HPMS Office. The number of fatalities for 2018 was projected to 278 after selecting a polynomial trendline of second order with a R2 of 92.5%. The value of the VMT for 2016 was projected because the official data have not yet been receive from the HPMS Office. The projected VMT for 2018 was 167.8. Thus, the safety performance target for the fatality rate was projected to 1.655 and the 5-year moving average to 1.690, both for 2018.

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Serious Injury Rate 23.570

Describe the basis for established target, including how it supports SHSP goals.

The databases used to establish the target for the serious injury rate were from ACAA and the Puerto Rico HPMS Office. The years considered during the analysis were from 2007 to 2016 for ACAA and from 2007 to 2015 for the Vehicle Miles Traveled (VMT) of the Puerto Rico HPMS Office. After selecting a power trendline with a R2 of 84.6%, the projected number of serious injuries for 2018 was 3,882.9. In addition, the value of the VMT for 2016 was projected because the official data have not yet been received from the Puerto Rico HPMS Office. The projected VMT for 2018 was 167.8. Thus, the safety performance target for the serious injury rate was projected to 23.300 and the 5-year moving average to 23.570, both for 2018. It is important to mention that the serious injury definition used in this performance target is different than the definition included in the MMUCC 4th edition. Puerto Rico is working to include the MMUCC definition in the crash report of the Police Department.

Total Number of Non-Motorized Fatalities and Serious Injuries 564.0

Describe the basis for established target, including how it supports SHSP goals.

The databases used to establish the target for the total number of non-motorized (pedestrians and cyclists) fatalities and serious injuries were from FARS and ACAA, respectively. The years considered during the analysis were from 2007 to 2016 for both FARS and ACAA. The number of fatalities plus serious injuries for 2018 was projected to 557 after selecting an exponential trendline with a R2 of 91.1%. Thus, the 5-year moving average safety performance target for the non-motorized number of fatalities plus serious injuries was projected to 564.

Enter additional comments here to clarify your response for this question or add supporting information.

Describe efforts to coordinate with other stakeholders (e.g. MPOs, SHSO) to establish safety performance targets.

On Wednesday, April 19 2017, the FHWA and PRHTA coordinated the State Safety Target Setting Coordination & Training Workshop with 20 participants including planners, engineers, and highway safety educators from the state highway agencies. In that workshop, Puerto Rico defined the safety performance targets. Then, there were several meetings with the SHSP Steering Committee to discuss the results of the aforementioned workshop. Finally, the safety performance targets were presented and discussed to the SHSP Executive Committee, where the PRDTPW Secretary approved the values for every performance target.

Does the State want to report additional optional targets?

No

Enter additional comments here to clarify your response for this question or add supporting information.

Applicability of Special Rules

Does the HRRR special rule apply to the State for this reporting period?

No

Enter additional comments here to clarify your response for this question or add supporting information.

Provide the number of older driver and pedestrian fatalities and serious injuries for the past seven years.

PERFORMANCE MEASURES	2009	2010	2011	2012	2013	2014	2015
Number of Older Driver and Pedestrian Fatalities	50	50	49	59	49	42	55
Number of Older Driver and Pedestrian Serious Injuries	464	398	496	449	337	402	457

Number of Older Driver and Pedestrian Fatalities and Serious Injuries by Year.



Enter additional comments here to clarify your response for this question or add supporting information.

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

Change in fatalities and serious injuries

Enter additional comments here to clarify your response for this question or add supporting information.

Based on the measures of effectiveness selected previously, describe the results of the State's program level evaluations.

PRHTA performed several Before and After Studies evaluations for safety improvement projects developed during years 2011 and 2012 with crash data from time period 2008 to 2015. The data used to evaluate the projects was taken from CARE. The before and after periods considered at least three (3) years according to the construction dates (project beginning and ending dates).

The HSIP evaluation process considered four (4) highway safety projects. The projects consists of two (2) rumble strips installation, one (1) safety corridors, and one (1) intersection improvement. In three of them, the results showed a reduction of fatal and injury crashes of 56% for the intersection improvement project and for the rumble strips installation projects, it was shown a reduction between 8% - 17%. In the safety corridor project, the before and after study showed an increase of 43%. The general results showed that HSIP program level evaluations are obtaining promising results in the reduction of the fatal and injury crashes.

What other indicators of success does the State use to demonstrate effectiveness and success of the Highway Safety Improvement Program?

RSAs completed
Increased awareness of safety and data-driven process
HSIP Obligations

Enter additional comments here to clarify your response for this question or add supporting information.

Are there any significant programmatic changes that have occurred since the last reporting period?

No

Effectiveness of Groupings or Similar Types of Improvements

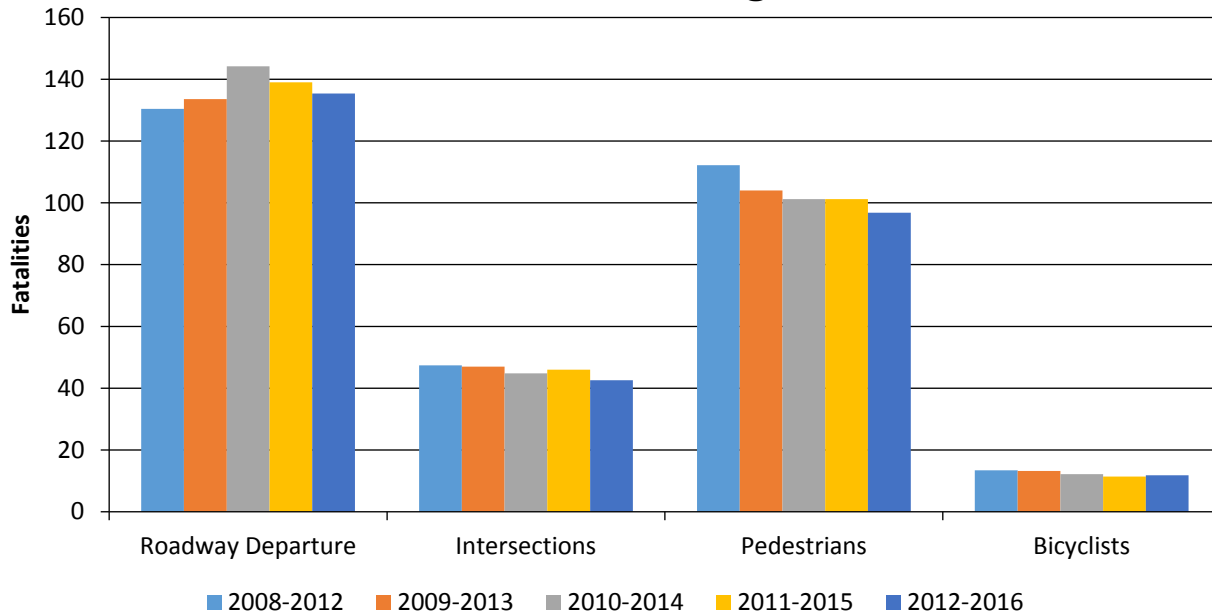
Present and describe trends in SHSP emphasis area performance measures.

2017 Puerto Rico Highway Safety Improvement Program

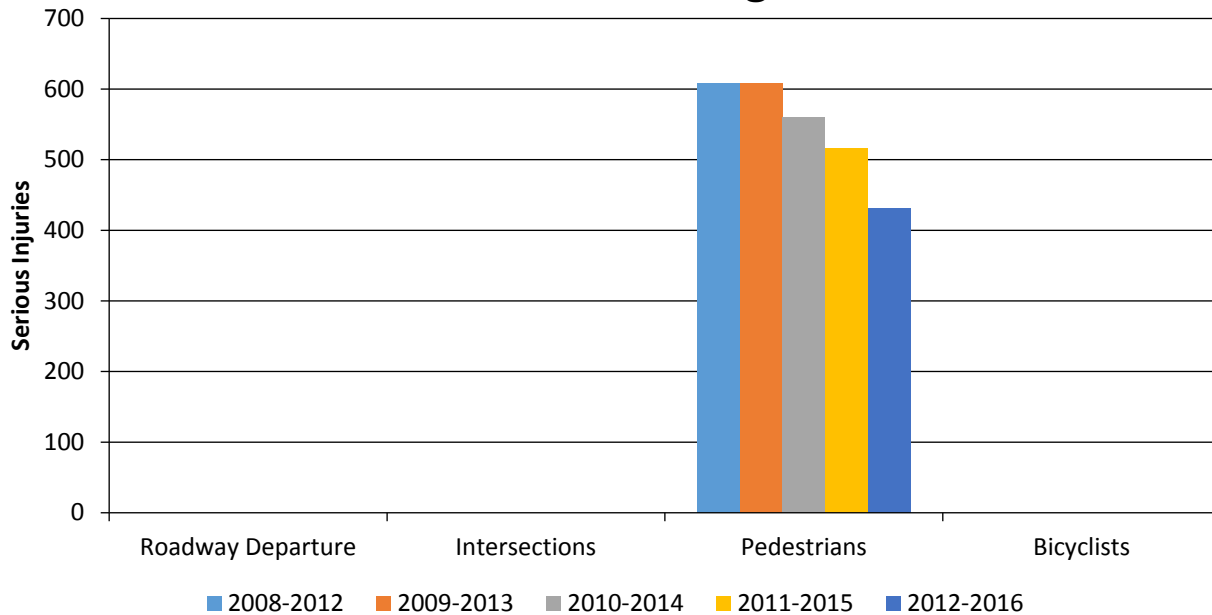
Year 2016

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)	Other 1	Other 2	Other 3
Roadway Departure	All	135.4	0	0.76	0	0	0	0
Intersections	All	42.6	0	0.24	0	0	0	0
Pedestrians	All	96.8	431.8	0.54	2.41	0	0	0
Bicyclists	All	11.8	0	0.07	0	0	0	0

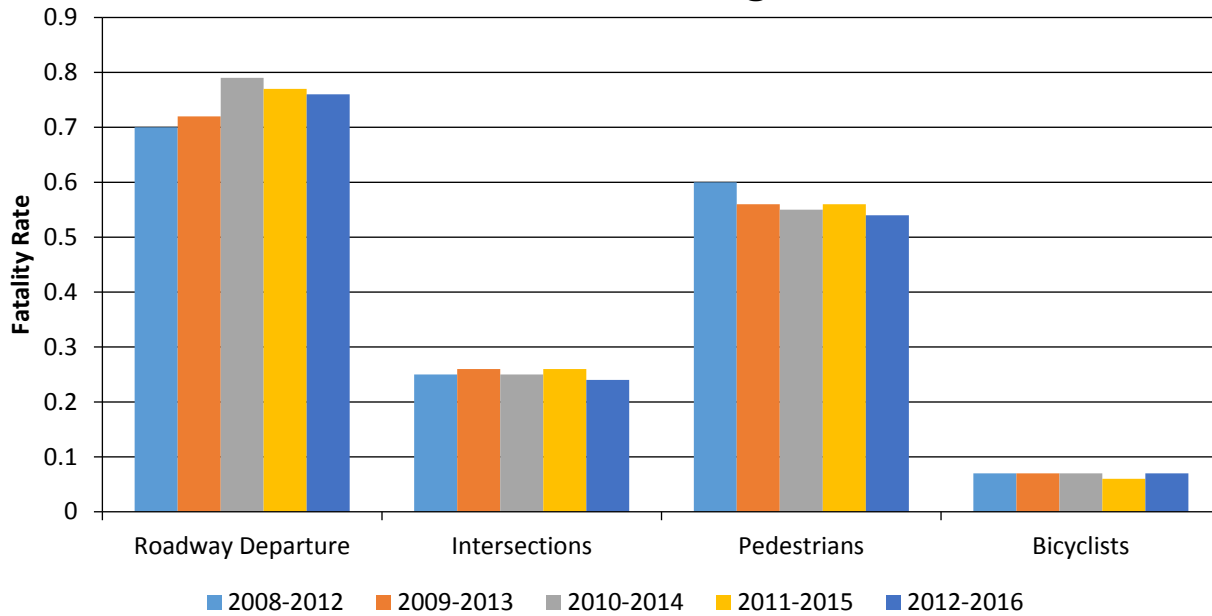
Number of Fatalities 5 Year Average



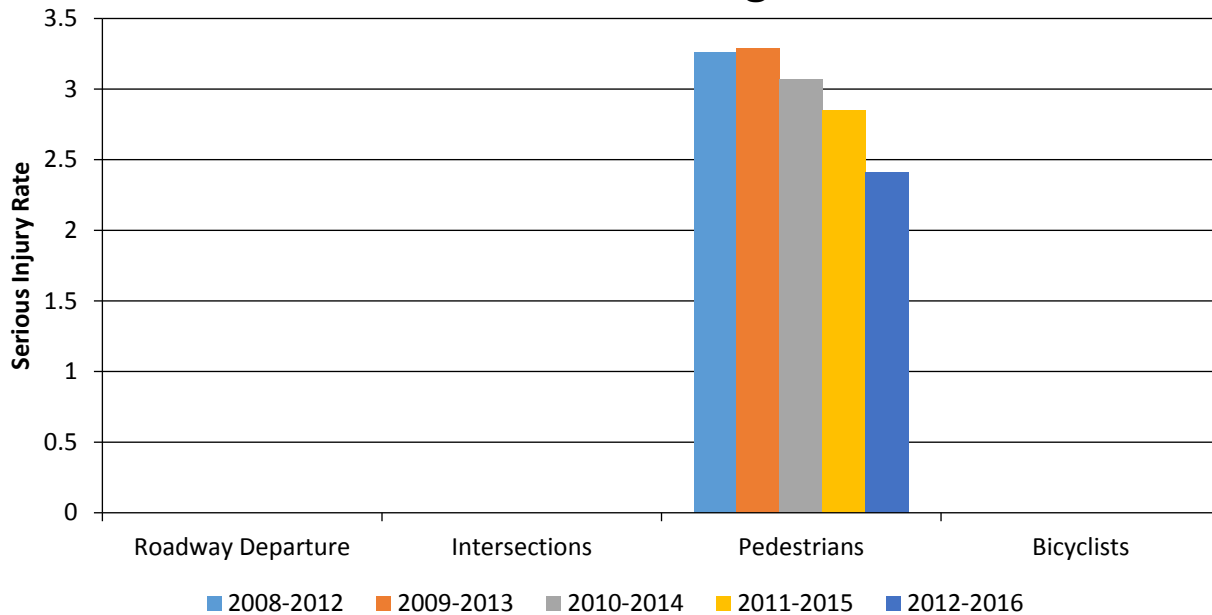
Number of Serious Injuries 5 Year Average



Fatality Rate (per HMVMT) 5 Year Average



Serious Injury Rate (per HMVMT) 5 Year Average



Enter additional comments here to clarify your response for this question or add supporting information.

The information was collected from the Puerto Rico crash database, FARS data and ACAA database (serious injuries). The zero (0) values represent that the analyzed data in Puerto Rico does not provide the requested information.

Has the State completed any countermeasure effectiveness evaluations during the reporting period?

No

Enter additional comments here to clarify your response for this question or add supporting information.

Project Effectiveness

Provide the following information for previously implemented projects that the State evaluated this reporting period.

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL INJURY BEFORE	ALL INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
PR-52 Km 65-107	Rural Principal Arterial - Interstate	Roadway	Rumble strips - edge or shoulder			14.00	10.00			819.00	756.00	833.00	766.00	
PR-53 Km 81-94	Rural Principal Arterial - Other Freeways and Expressways	Roadway	Rumble strips - edge or shoulder			1.00	1.00			90.00	75.00	91.00	76.00	
PR-114 Km 7-14	Rural Minor Arterial	Roadway	Rumble strips - center			1.00				15.00	23.00	16.00	23.00	
PR-22 intersection PR-167	Urban Principal Arterial - Other	Intersection geometry	Auxiliary lanes - add left-turn lane				1.00			106.00	46.00	106.00	47.00	

Enter additional comments here to clarify your response for this question or add supporting information.

Are there any other aspects of the overall HSIP effectiveness on which the State would like to elaborate?

Yes

Describe any other aspects of HSIP effectiveness on which the State would like to elaborate.

PRHTA is highly engaged in developing a methodology to evaluate the HSIP effectiveness in Puerto Rico. Currently, PRHTA maintains a Project Tracking Tool (PTT) to continuously evaluate the progress of the highway safety improvement projects and keep safety stakeholders informed (Project Tracking Tool). In addition, PRHTA performs before and after studies for qualified highway safety improvement projects. To qualify, PRHTA shall have, at least, three (3) years of crash data before and after projects duration. However, PRHTA recognizes the need of additional resources to enhance the effectiveness evaluation of the HSIP for next year (i.e. training, peer-to-peer workshops).

Compliance Assessment

What date was the State’s current SHSP approved by the Governor or designated State representative?

07/30/2014

What are the years being covered by the current SHSP?

From: 2014 To: 2019

When does the State anticipate completing it’s next SHSP update?

2019

Enter additional comments here to clarify your response for this question or add supporting information.

The current SHSP was approved from July 30, 2014 until July 30, 2019 (5 years). The next SHSP update is plan to be on year 2019.

Provide the current status (percent complete) of MIRE fundamental data elements collection efforts using the table below.

MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT										
Segment Identifier (12)	100	0					1.7	0	0	0
Route Number (8)	100	0								
Route/Street Name (9)	100	0								
Federal Aid/Route Type (21)	100	0								
Rural/Urban Designation (20)	100	0					1.7	0		
Surface Type (23)	100	0					1.7	0		
Begin Point Segment Descriptor (10)	100	0					1.7	0	0	0
End Point Segment Descriptor (11)	100	0					1.7	0	0	0
Segment Length (13)	100	0								
Direction of Inventory (18)	100	0								
Functional Class (19)	100	0					1.7	0	0	0
Median Type (54)	100	0								

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MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
Access Control (22)	100	0								
One/Two Way Operations (91)	100	0								
Number of Through Lanes (31)	100	0					1.7	0		
Average Annual Daily Traffic (79)	100	0					1.7	0		
AADT Year (80)	100	0								
Type of Governmental Ownership (4)	100	0					1.7	0	0	0
INTERSECTION										
Unique Junction Identifier (120)			0	0						
Location Identifier for Road 1 Crossing Point (122)			0	0						
Location Identifier for Road 2 Crossing Point (123)			0	0						
Intersection/Junction Geometry (126)			0	0						
Intersection/Junction Traffic Control (131)			0	0						
AADT for Each Intersecting Road (79)			0	0						
AADT Year (80)			0	0						
Unique Approach Identifier (139)			0	0						
INTERCHANGE/RAMP										
Unique Interchange Identifier (178)					0	0				
Location Identifier for Roadway at Beginning of Ramp Terminal (197)					0	0				
Location Identifier for Roadway at Ending Ramp Terminal (201)					0	0				
Ramp Length (187)					0	0				
Roadway Type at Beginning of Ramp Terminal (195)					0	0				

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MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
Roadway Type at End Ramp Terminal (199)					0	0				
Interchange Type (182)					0	0				
Ramp AADT (191)					0	0				
Year of Ramp AADT (192)					0	0				
Functional Class (19)					0	0				
Type of Governmental Ownership (4)					0	0				
Totals (Average Percent Complete):	100.00	0.00	0.00	0.00	0.00	0.00	1.70	0.00	0.00	0.00

Enter additional comments here to clarify your response for this question or add supporting information.

Describe actions the State will take moving forward to meet the requirement to have complete access to the MIRE fundamental data elements on all public roads by September 30, 2026.

To achieve the required MIRE FDE for year 2026, Puerto Rico has developed the following phases and was reported in the Traffic Records Coordinating Committee (TRCC) Action Plan:

Phase 1 - Develop the list of roadway segments, intersections, and ramps to be included in the Puerto Rico MIRE FDE database, including GIS. An outsource or private consultant will be contracted to develop the spreadsheet of roadway segments, ramps, and intersections where MIRE FDE will be obtained.

Phase 2 - MIRE FDE data gathering. Consultants will be contracted to simultaneously collect MIRE FDE along roadway segments, intersections, and ramps identified in Phase 1. These roadway kilometers, intersections, and ramps will be distributed evenly between various contractors to fasten the data collection process. To enhance production and quality control, each contractor will work along entire road lengths, including corresponding intersections and ramps. This process will be repeated in Phase 3 to keep data updated as established in the federal regulations.

Phase 3 - MIRE FDE integration with other databases. As other programs within the PRHTA, PRTSC, and others need information collected in the MIRE FDE, it becomes important to integrate the MIRE FDE with other updated databases. This will be especially valuable for calculating the Vehicle Mile Traveled (VMT); an essential element to determine the Puerto Rico SHSP and HSP performance measures (i.e. fatality rate and serious injury rate).

Provide the suspected serious injury identifier, definition and attributes used by the State for both the crash report form and the crash database using the table below. Please also indicate whether or not these elements are compliant with the MMUCC 4th edition criteria for data element P5. Injury Status, suspected serious injury.

CRITERIA	SUSPECTED SERIOUS INJURY IDENTIFIER(NAME)	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY DEFINITION	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY ATTRIBUTES(DESCRIPTORS)	MMUCC 4TH EDITION COMPLIANT *
Crash Report Form	Is not included in the crash report form.	No	N/A	No	N/A	No
Crash Report Form Instruction Manual	Is not included in the crash report form.	No	Is not included in the crash report form.	No	Is not included in the crash report form.	No
Crash Database	Is not included in the crash report form.	No	N/A	No	N/A	No
Crash Database Data Dictionary	Is not included in the crash report form.	No	Is not included in the crash report form.	No	Is not included in the crash report form.	No

Please describe the actions the State is taking to become compliant by April 15, 2019.

The current PRPD crash report form is a paper form from the year 1988. Between the 2010 and 2014, the PRPD crash report form was updated complying with an 85% of the fourth edition of the MMUCC, including the suspected serious injury definition. In addition, from 2016 to the present, the PRPD is currently testing a newly develop electronic crash report that will include the updated version of the PRPD crash report form. This electronic crash report form will comply with the KABCO injury classification scale.

Enter additional comments here to clarify your response for this question or add supporting information.

Did the State conduct an HSIP program assessment during the reporting period?

No

When does the State plan to complete it's next HSIP program assessment.

2018

Enter additional comments here to clarify your response for this question or add supporting information.

Optional Attachments

Program Structure:

Project Implementation:

Safety Performance:

Evaluation:

Compliance Assessment:

Glossary

5 year rolling average	means the average of five individuals, 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 non-infrastructure 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.
Systematic	refers to an approach where an agency deploys countermeasures at all locations across a system.
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.