PUERTO RICO

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2018 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 second time that the Puerto Rico Highway and Transportation Authority (PRHTA) submits the Highway Safety Improvement Program (HSIP) report, corresponding to the calendar year 2017. 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 $29.5 Million distributed in eight (8) highway safety improvement projects. The 75% of these projects addressed systemic safety improvements, including signing, pavement marking, traffic signals, and guardrails. The other 25% were targeted as hot spot approach procedure.

The PRHTA performed engineering studies (High Crash Location Report 2017, 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 (i.e. Highway Safety Manual workshop). Also, the MIRE Action Plan was developed during this period.

Finally, there is no funds allocated for local or tribal roads and for non-infrastructure projects. Allocating federal funds to improve highway safety through the State highway system had been essential to stop the increase in the number of fatal and injury crashes in Puerto Rico due to the aftermaths of hurricanes Irma and María. The crash data from 2014 to August 2017, before hurricanes Irma and María, demonstrated that Puerto Rico was experiencing a consistent reduction in fatalities. 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:

- Crash data collection in the Puerto Rico Department of Transportation and Public Works (PRDTPW).
- 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.
- 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.

Not Applicable.

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 HSIP funds in Puerto Rico represents the 25% of the federal funds as an allocated program.

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 (PRHTA) 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.

Not Applicable.

Describe coordination with internal partners.

The PRHTA Office Directors held several meetings 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
FHWA
Other-Non-profit organizations

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

Not Applicable.

Describe coordination with external partners.

As part of the Puerto Rico SHSP, the external partners can 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, young drivers, alcohol impaired driving, and aggressive driving) 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 Fatalities database 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 Carlos Albizu University. The ACAA provides the number of injured people that were transported in an ambulance because of a traffic crash.

The Puerto Rico Police (PRP) 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 San Juan Metropolitan Area (SJMA). In addition, the PRHTA coordinate with the PRP, MPO, and other safety stakeholders the use of the High Crash Location Report. This to enhance the available resources for enforcement, educational, engineering, and emergency medical response activities.

The ALIANZA (Spanish name for the coalition of the third sector) has been working together to enhance their participation into the Puerto Rico SHSP. The HSIP promote this alliance by encouraging them to unite efforts and providing technical references for their studies and activities (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?

Yes

Describe HSIP program administration practices that have changed since the last reporting period.

The PRHTA is been formalizing a new process to define the highway safety improvement projects. This

process takes into account the results of the High Crash Location Reports, the roadway segments and intersections impacted by safety improvement projects during the recent five years, and the current condition of the roadside safety hardware. The most important modification in the program administration practice was to implement an Accelerated Design Process for roadway segments and intersections meeting environmental, traffic, and other design criteria under the Categorical Exclusion in close coordination with the Pavement and Bridges Management Offices. In summary, all of the PRHTA pavement and bridge projects are including systemic safety improvements such: pavement markings, roadside safety hardware (meeting current standards), and others (drainage, signing, etc.). By implementing this strategy, the PRHTA enhances the capabilities of the HSIP funds by focusing them on the most critical roadway segments (safety is the main issue). These are roadway segments or intersections with crashes associated to: roadway departure, intersection geometry, lack of pedestrian facilities, poor traffic signal operation, issues with the traffic signing, and need to implement share the road; among other spot and systemic improvements.

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.

The percent of the PRHTA systemic improvement projects increase from 33%, in 2016, to 75% in this reporting period 2017. This is because the methodology for choosing the safety improvement projects combine the PRHTA's crash data, within the High Crash Location Report, and the PRHTA's pavement condition database.

Program Methodology

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

No

To upload a copy of the State processes, attach files below.

File Name:

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

The PRHTA is being increasingly using the best and pertinent data available since the approval of the Puerto Rico SHSP in July 2014. These data have helped to develop studies, evaluation of the performance measures, among others. As mentioned before, the PRHTA is formalizing a new process to define the highway safety improvement projects. PRHTA's executive and supporting decision makers, consider a broad spectrum of information (i.e., HCLR, previous projects) to identify the list of project's candidates. The result of this evaluation, where the priorities from all the PRHTA programs are considered, is a plan of integrated projects by funding designation. The decision makers recommend a fund designation to each project candidate based on all the information available. For example, if the site was included based on the poor pavement condition, it shall be classified under the Pavement Program Funding, but project scope will also include the necessary highway safety improvements. In cases where the data shows a good pavement condition and a good bridge condition of a High Crash Location, the site will be classified under the ZP-30 funding class (HSIP funds). The top management officials decided to develop an accelerated highway design program to fasten the design

process of projects meeting the Categorical Exclusion criteria. To include a project into this program, the executive level consults the Metropolitan Planning Organization (MPO) for their approval. Then, PRHTA contracts design firms to prepare the Preliminary Engineering Reports (PER) and the Abbreviated Plans, Specifications, and Estimate (APS&E). These documents are used for the bidding and construction processes. Finally, PRHTA evaluates the effectiveness of the countermeasures implemented performing Before and After Studies.

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.

Not Applicable.

Program: HSIP (no subprograms)

Date of Program Methodology: 7/1/2017

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]

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

What percentage of HSIP funds address systemic improvements?

75

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

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

Not Applicable.

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
Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
Stakeholder input

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

Not Applicable.

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

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

If a safety project recommends ITS technology as part of the countermeasures proposed, PRHTA will propose the use of HSIP funds for the development and implementation of the technology (i.e. traffic signal, dynamic message sign, TMC).

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 (CCF) and a Frequency Index (FI), corresponding to the Crash Rate and Severity Index presented in the HSM. PRHTA have been 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 participating in the Data-Driven Safety Analysis FHWA Initiative. As part of this initiative, a series of workshops to enhance the technical knowledge of the professional community (internal and external) on the application of the HSM in Puerto Rico will be provided during the year 2018.

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.

As part of the methodology of the HSIP, the PRHTA participate in several activities that includes education, enforcement, emergency medical response, and engineering. The PRHTA is fully supporting the efforts of the Puerto Rico Police and the Traffic Records Coordinating Committee in developing the digital crash form. This effort will help the PRHTA to perform a faster and accurate crash analysis. In addition, the PRHTA participated in activities related to the academia, where the message of highway safety and its problems was taken directly to the engineering students looking for new ideas and creating awareness between them. Also, the PRHTA promoted among the safety stakeholders and public an educational campaign of the Puerto Rico Traffic Safety Commission (PRTSC) targeted to aggressive drivers.

In March 2017, the Puerto Rico SHSP conducted an Emphasis Areas Team Meeting. In this meeting, each emphasis area team discussed the actions implemented in the 2017 and which strategies use to achieve the goals. This meeting has the purpose of having all the safety stakeholders of Puerto Rico in the same table to reach agreements between key agencies and professionals.

In April 2017, the PRHTA and FHWA conducted the State Safety Target Training Setting Workshop. This workshop had the objective of evaluate the new performance measures and objectives of the Puerto Rico SHSP. In this workshop were representation of several office of the PRHTA (federal office, highway safety, strategic planning, and federal coordination) and the PRTSC.

Other activities supported by the HSIP methodology were the installation of several variable message signs in the PR-52 at San Juan, with messages such as “Obey Limit Speed”, “Use the Seatbelt”, and “Maximum Speed 65mph”, as part of the initiatives of ITS in the PRHTA. Also, the inauguration of 11 vehicles from the Unified Emergency Response and Operation Service (SEGURO, by its Spanish acronym), with the purpose of aid in traffic incidents such as a car crash, flat tire, mechanical problems, among others, to avoid a second incident on the road. SEGURO started in April 2017 and is providing patrol in the PR-18, PR-26, PR-30, and PR-52 from Mondays to Fridays between 5:00a.m. to 9:00p.m. In addition, the PRHTA support education efforts from non-profit organizations such as the Institute of Transportation Engineers (ITE), member of ALIANZA. In April 2017, the ITE conducted their 2017 Spring Meeting where the main topic was the new Design Guides for Complete Streets in Puerto Rico.

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 2017.

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$30,000,000	$29,529,072	98.43%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$0	0%
Penalty Funds (23 U.S.C. 154)	$1,600,000	$0	0%
Penalty Funds (23 U.S.C. 164)	$1,600,000	$0	0%
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	$33,200,000	$29,529,072	88.94%

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

The 2017 penalty funds (23 U.S.C. 154 & 164) were not obligated by PRHTA due a redistribution of funds from the previous federal fiscal year. This action was taken by PRHTA in agreement with FHWA. PRHTA expects to use and obligate the safety funds during federal fiscal year 2018 in safety projects that help us to reduce the frequency and severity of crashes in some locations.

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.

Not Applicable.

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

$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.

Not Applicable.

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.

Not Applicable.

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

There was no major impediments to obligate the HSIP funds in this period, except for the penalty funds that were not obligated due a redistribution of funds from the previous federal fiscal year (as explained in the Q23).

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.

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-66. From km 0 to 20 (AC-006639)	Roadway delineation	Longitudinal pavement markings - remarking	12	Miles	$6999165.25	$7173464.1	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	30,200	65	State Highway Agency	Systemic	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects.
Safety Improvements at PR-20. From km 0 to 10 (AC-002065)	Roadway delineation	Longitudinal pavement markings - remarking	6	Miles	$10205525.63	$16976051	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other Freeways and Expressways	53,300	65	State Highway Agency	Systemic	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects.
Safety Improvements at PR-52. From km 49 to 52.3 (AC-520138)	Roadside	Barrier- metal	2	Miles	$3171104.09	$3424225.2	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	32,900	55	State Highway Agency	Systemic	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects.
Safety Improvements at PR-52. From km 55.3 to 61 (AC-520137)	Roadside	Barrier- metal	3	Miles	$3437890.94	$3676498.1	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	34,900	55	State Highway Agency	Systemic	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects.
Safety Improvements at PR-152. From km 0 to 11.2 (AC-015235)	Roadway delineation	Longitudinal pavement markings - remarking	7	Miles	$1763024	$1978021	HSIP (23 U.S.C. 148)	Rural Minor Arterial	11,675	35	State Highway Agency	Systemic	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects.
Safety Improvements at PR-152. From km 13.2 to 20.5 (AC-015237)	Roadway delineation	Longitudinal pavement markings - remarking	4	Miles	$1365596	$1365596	HSIP (23 U.S.C. 148)	Rural Minor Arterial	14,733	35	State Highway Agency	Systemic	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects.
Managed Lines or Dynamic Toll Lanes PR-52 (AC-520141)	Roadway	Roadway widening - add lane(s) along segment	2	Lanes	$1480490	$11536270	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	105,000	55	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects.
Managed Lines or Dynamic Toll Lanes PR-52 (AC-520142)	Roadway	Roadway widening - add lane(s) along segment	2	Lanes	$1106277	$8241269	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	110,000	55	State Highway Agency	Spot	Roadway Departure	Implement engineering measures to remove and/or shield fixed-objects.

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

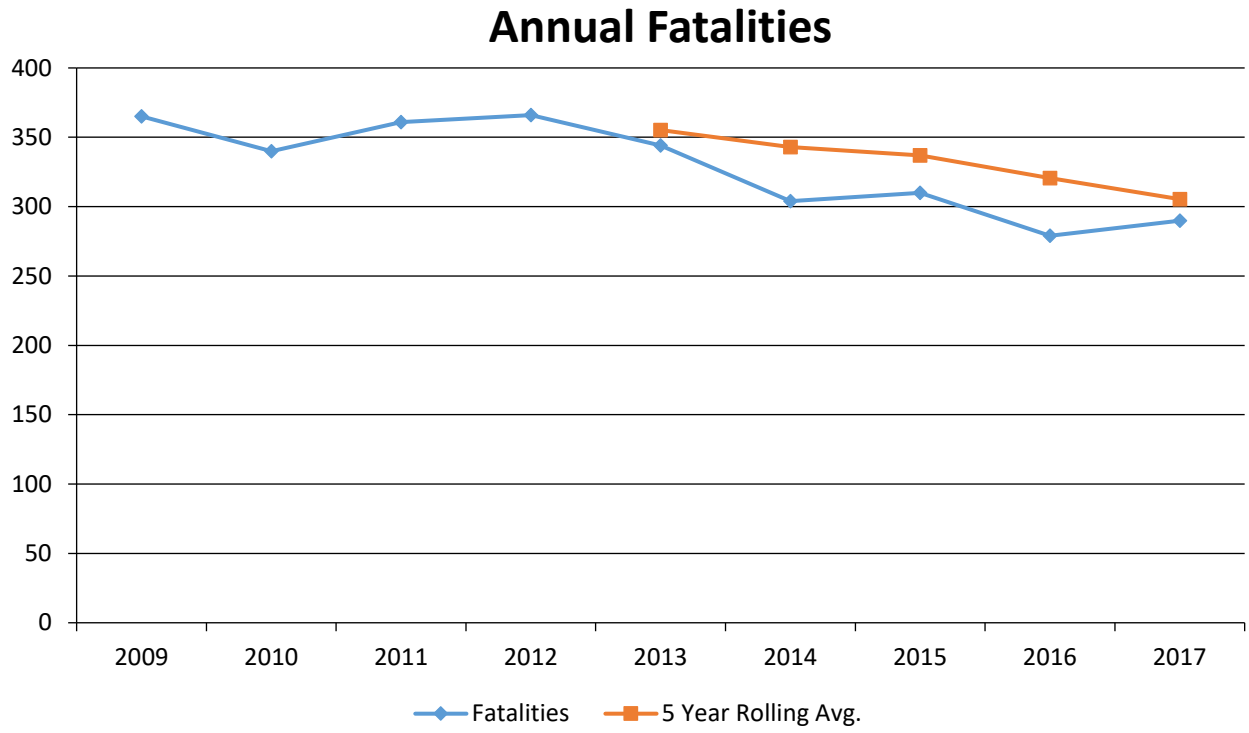
Not Applicable.

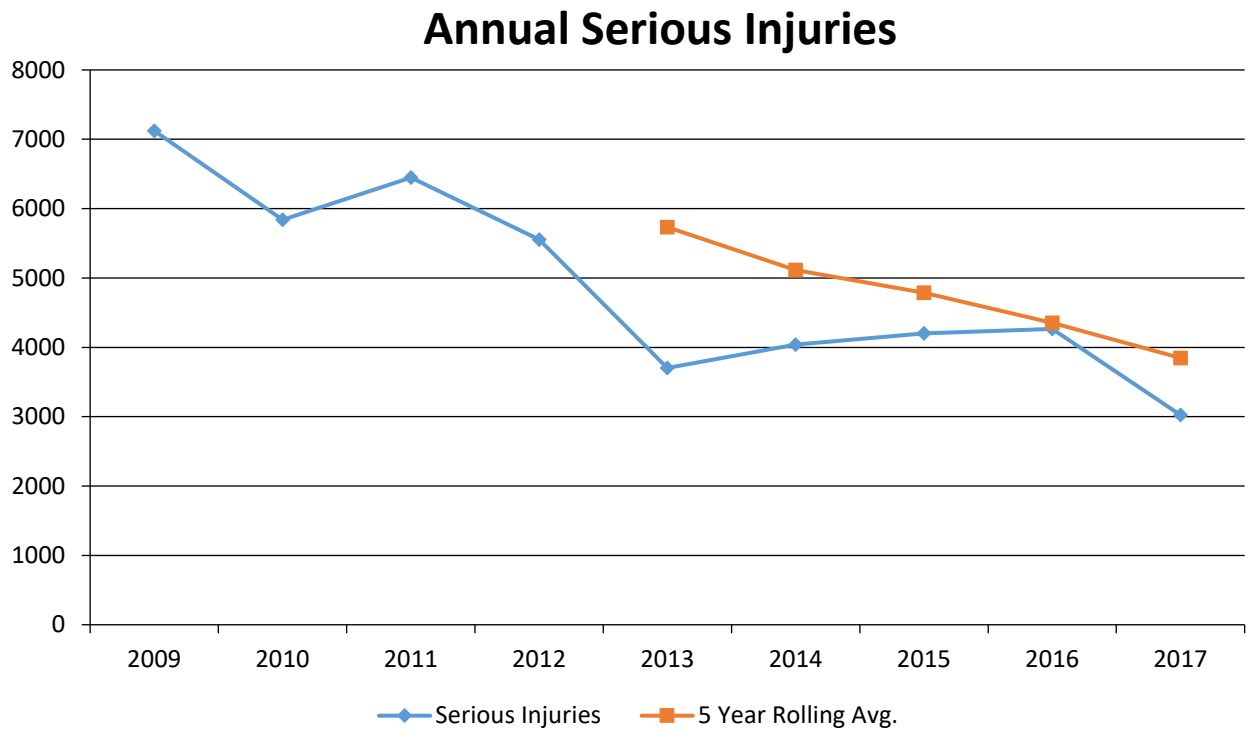
Safety Performance

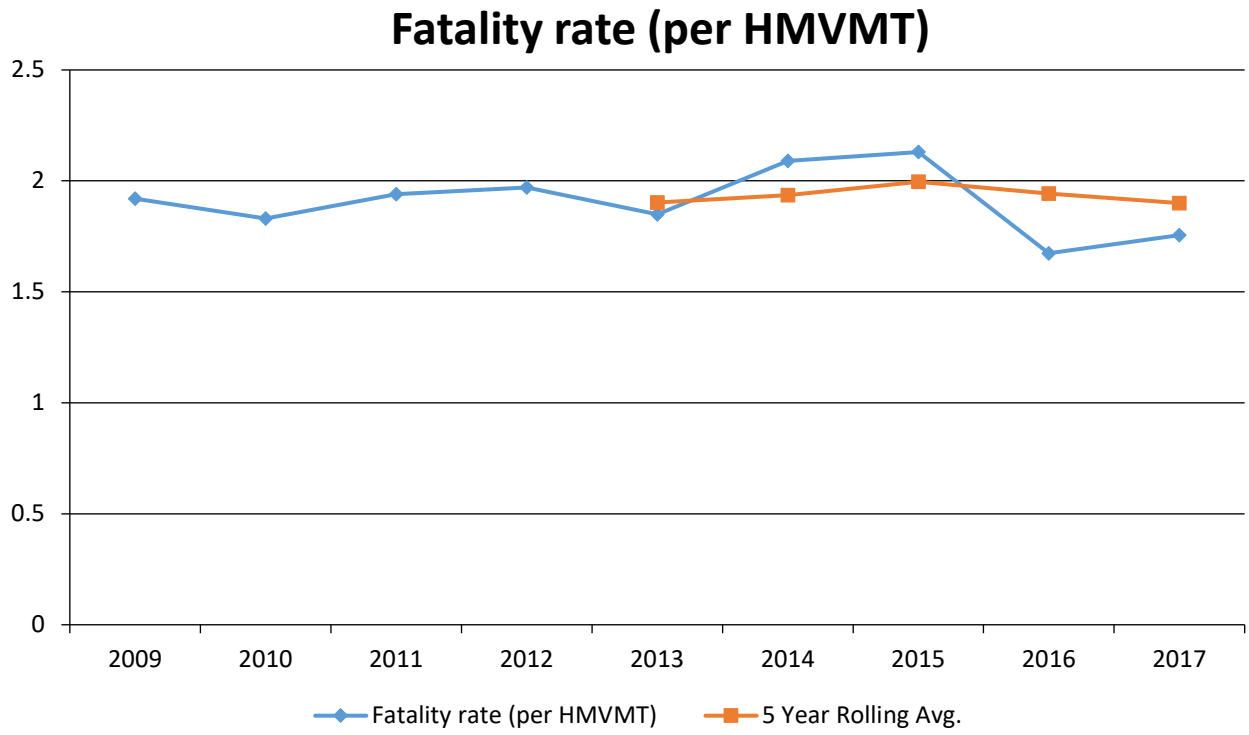
General Highway Safety Trends

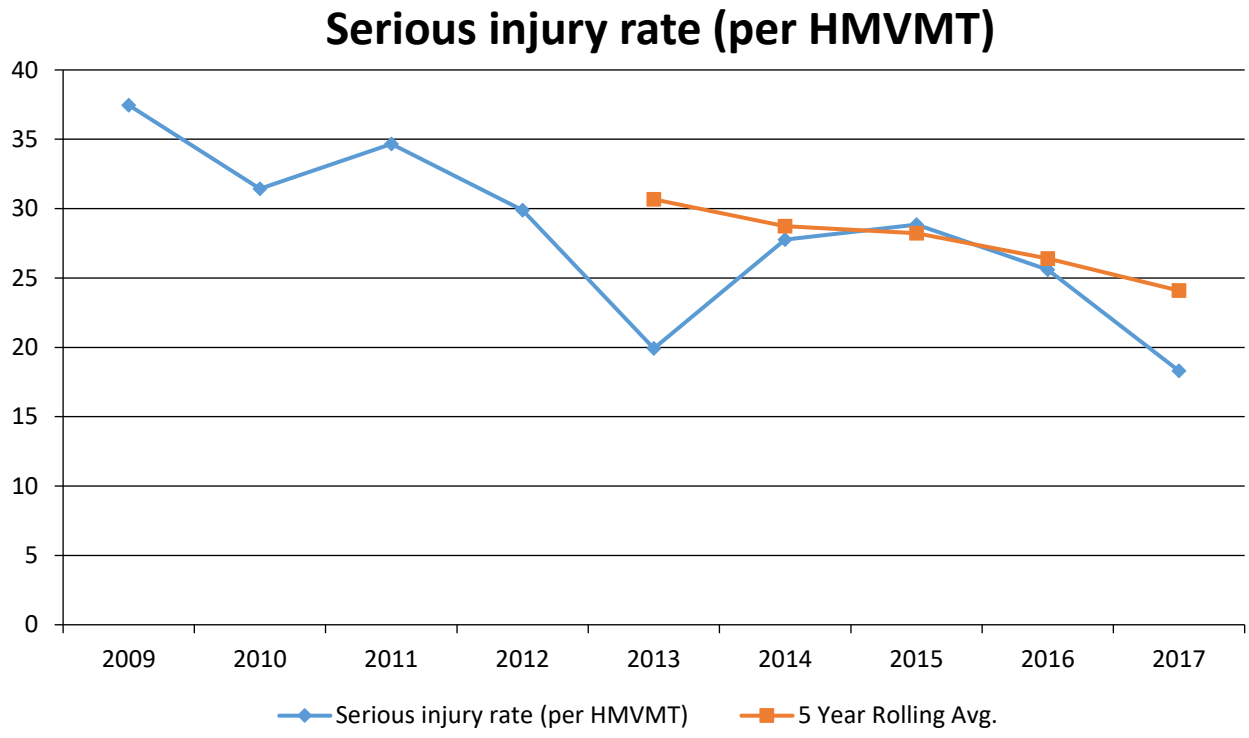
Present data showing the general highway safety trends in the State for the past five years.

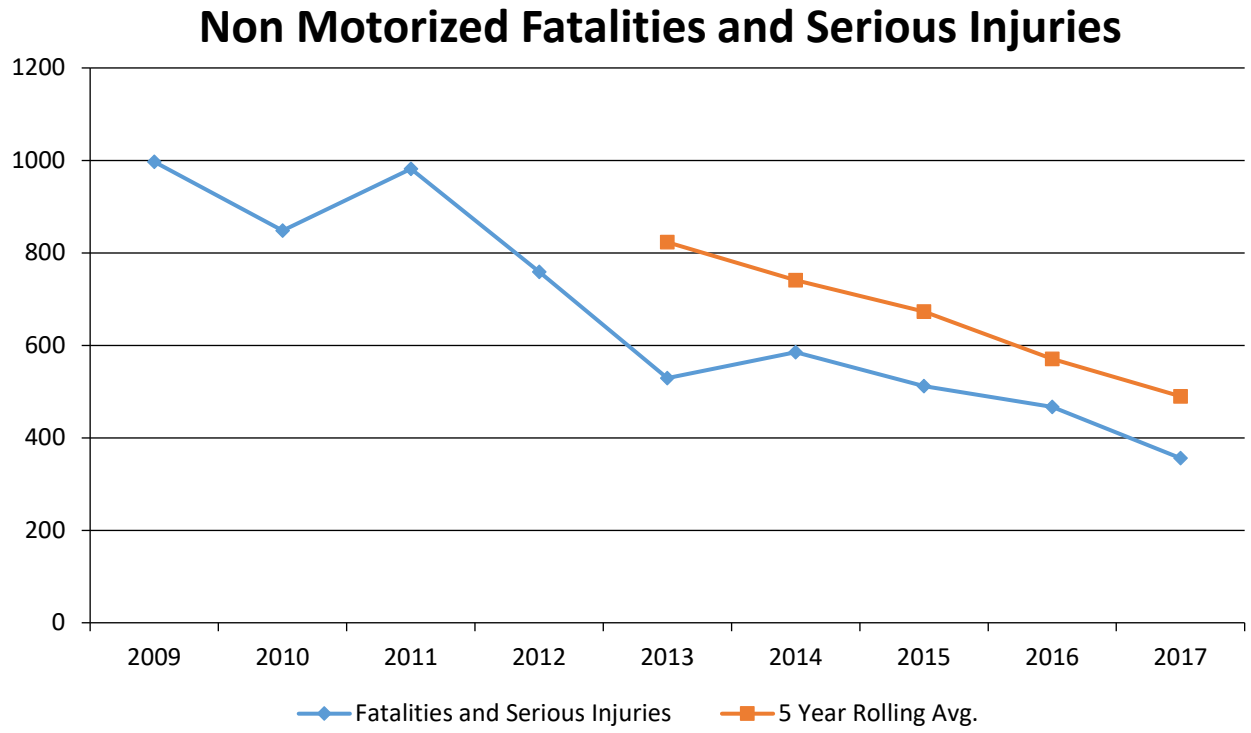
PERFORMANCE MEASURES	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fatalities	365	340	361	366	344	304	310	279	290
Serious Injuries	7,122	5,838	6,449	5,551	3,705	4,040	4,199	4,267	3,024
Fatality rate (per HMVMT)	1.920	1.830	1.940	1.970	1.850	2.090	2.130	1.674	1.755
Serious injury rate (per HMVMT)	37.464	31.423	34.657	29.878	19.925	27.776	28.851	25.603	18.304
Number non-motorized fatalities	126	116	118	128	98	107	112	98	108
Number of non-motorized serious injuries	871	732	864	631	431	478	400	369	248


Annual Fatalities
400
350
300
250
200
150
100
50
0
2009
2010
2011
2012
2013
2014
2015
2016
2017
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
8000
7000
6000
5000
4000
3000
2000
1000
0
2009
2010
2011
2012
2013
2014
2015
2016
2017
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
2.5
2
1.5
1
0.5
0
2009
2010
2011
2012
2013
2014
2015
2016
2017
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
40
35
30
25
20
15
10
5
0
2009
2010
2011
2012
2013
2014
2015
2016
2017
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



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

Not Applicable.

Describe fatality data source.

Other

If Other Please describe

Puerto Rico Fatality Database

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

Puerto Rico Fatality Database is managed by Puerto Rico Traffic Safety Commission.

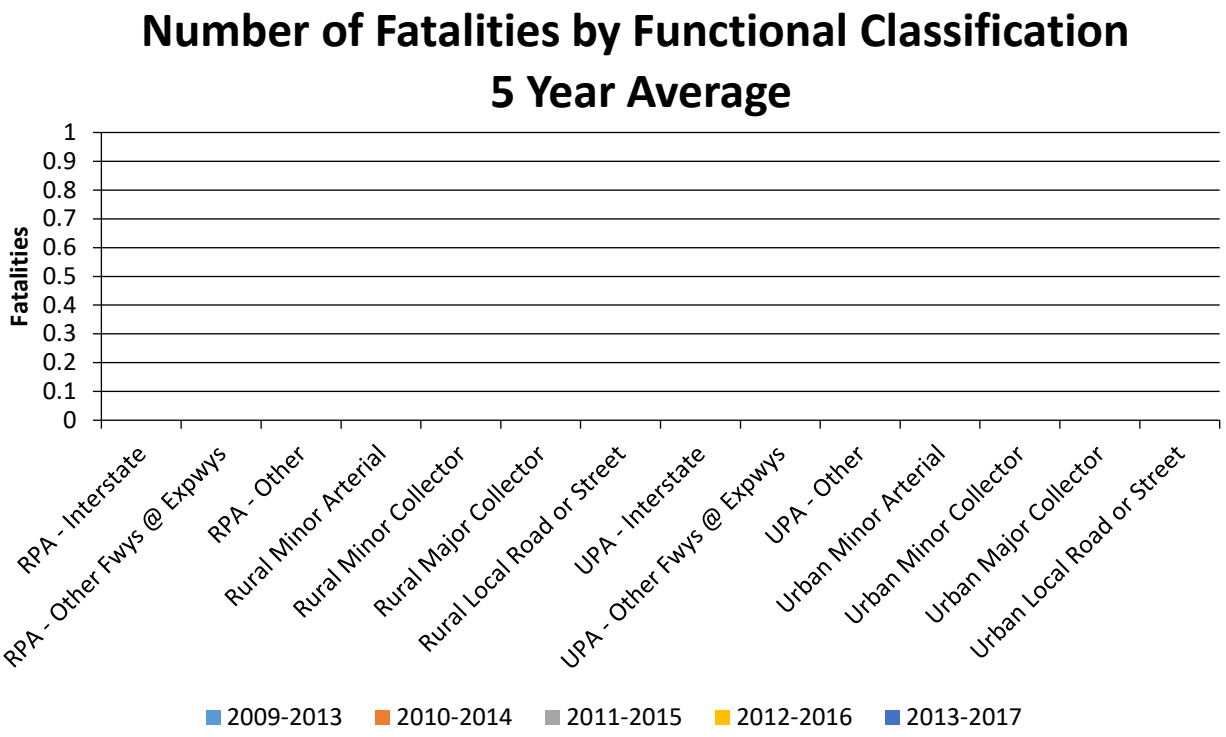
To the maximum extent possible, present this data by functional classification and ownership.

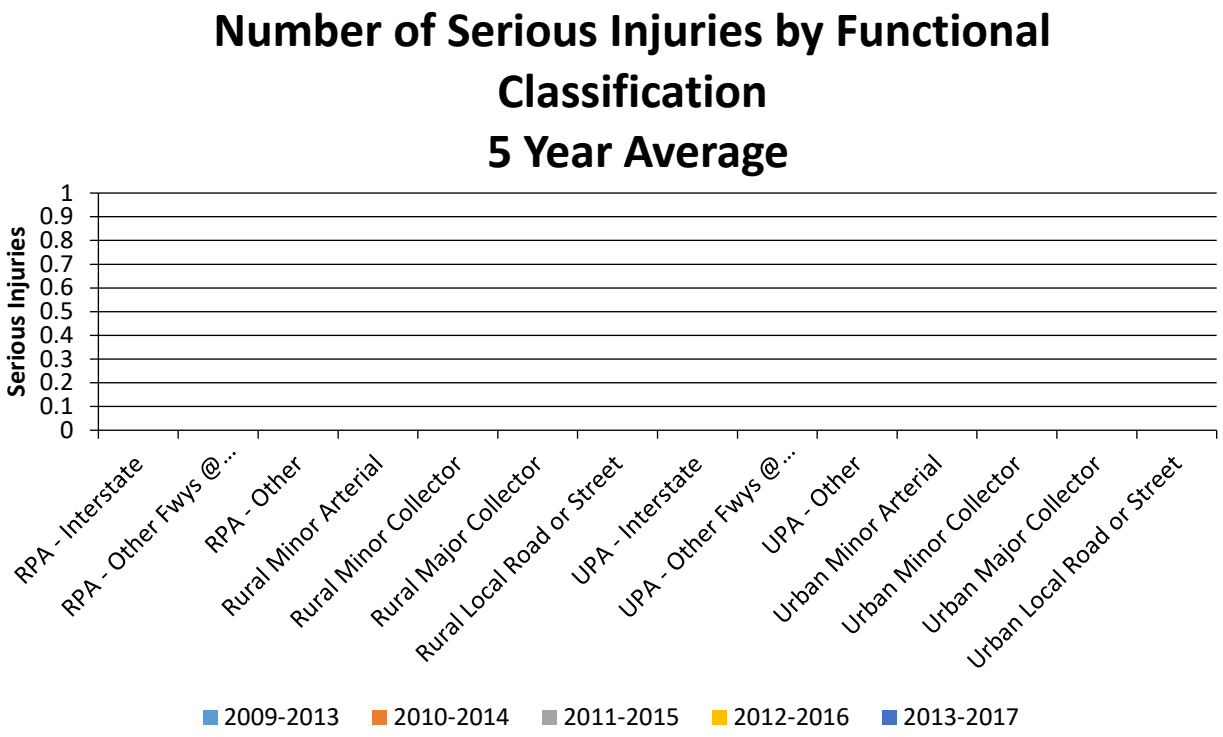
Year 2016

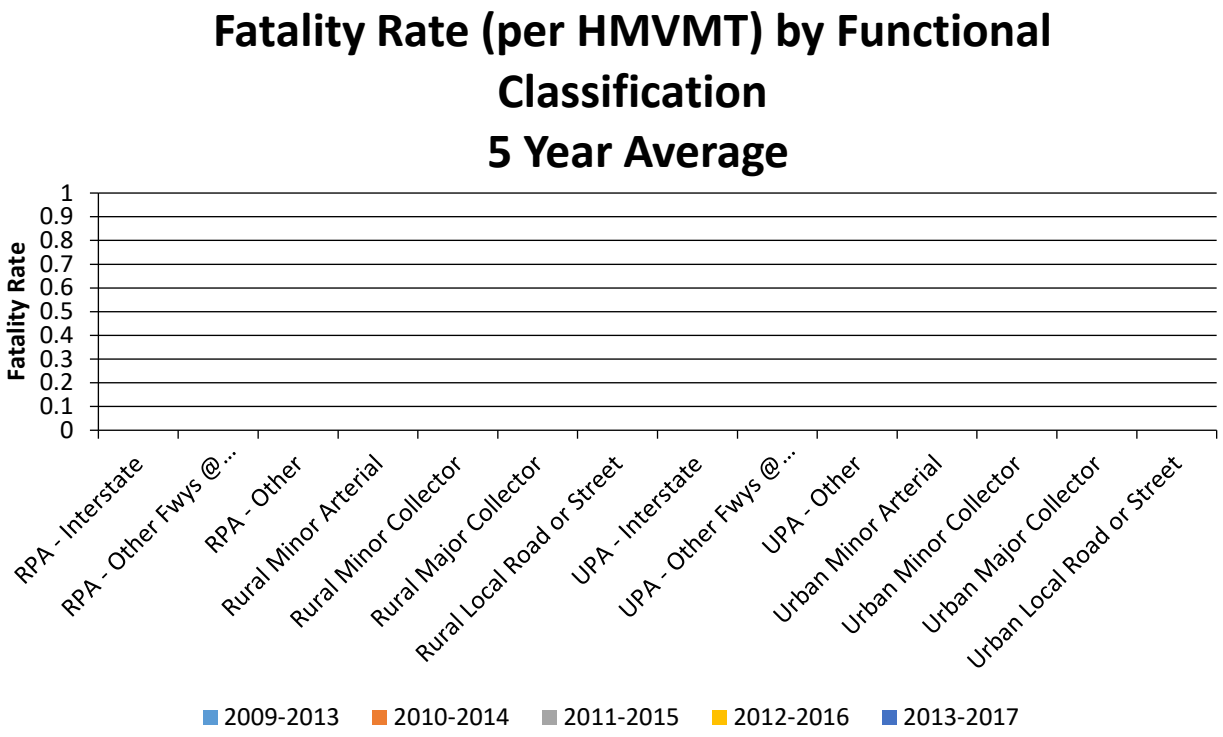
Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate	0	0	0	0
Rural Principal Arterial (RPA) - Other Freeways and Expressways	0	0	0	0
Rural Principal Arterial (RPA) - 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 Arterial (UPA) - Interstate	0	0	0	0
Urban Principal Arterial (UPA) - Other Freeways and Expressways	0	0	0	0
Urban Principal Arterial (UPA) - 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

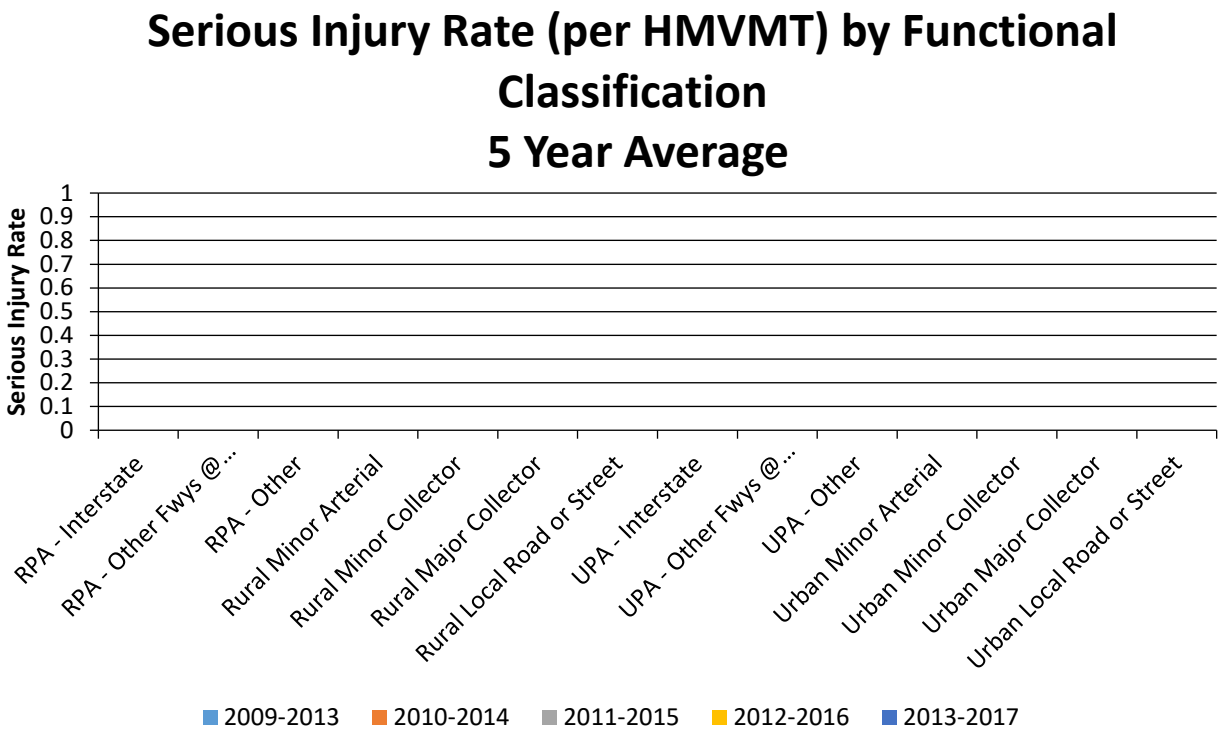
Year 2017

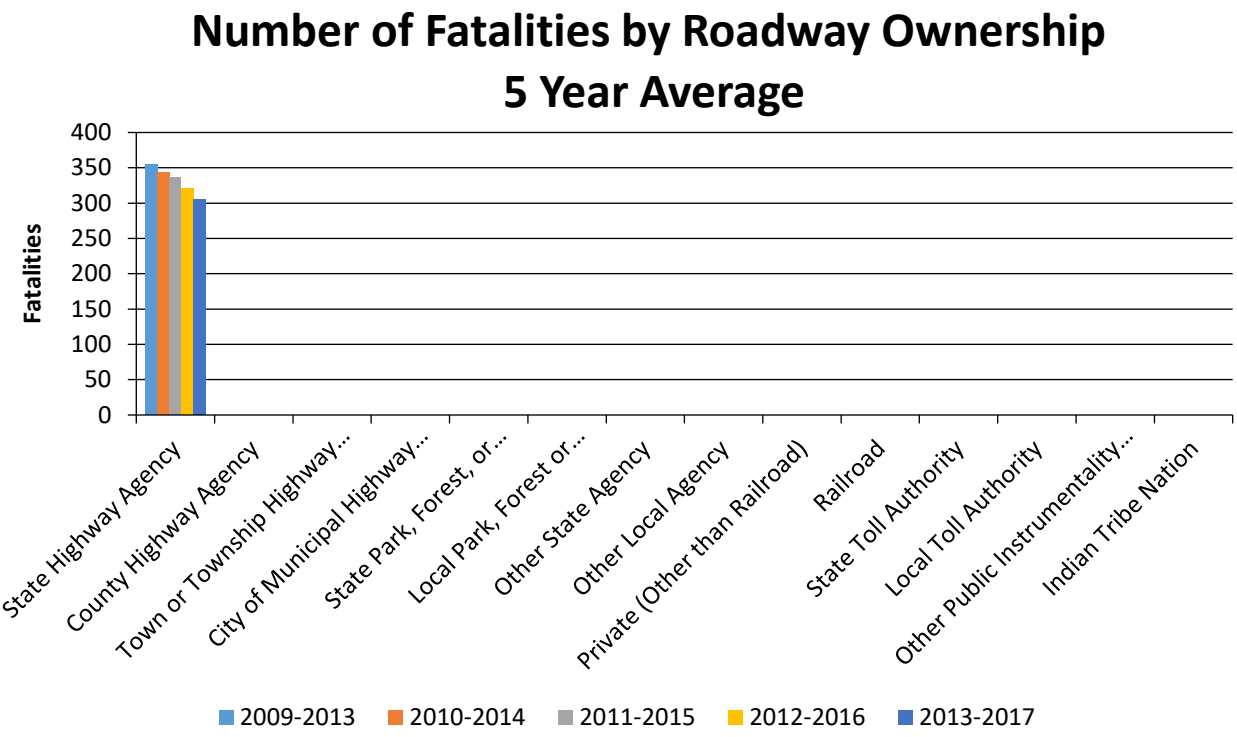
Roadways	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
State Highway Agency	305.4	3,847	1.9	24.09
County Highway Agency	0	0	0	0
Town or Township Highway Agency	0	0	0	0
City of Municipal Highway Agency	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 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

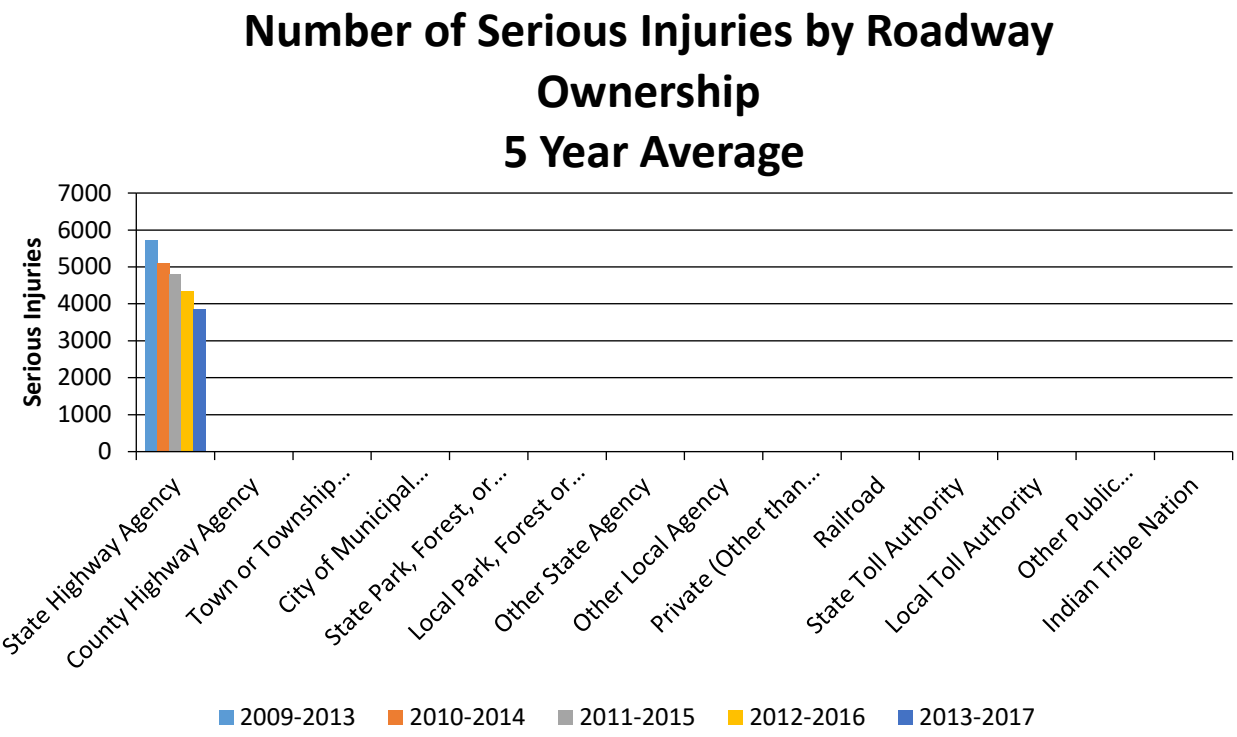

Number of Fatalities by Functional Classification
5 Year Average
Fatalities
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
RPA - Interstate
RPA - Other Fwys @ Expwys
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @ Expwys
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017

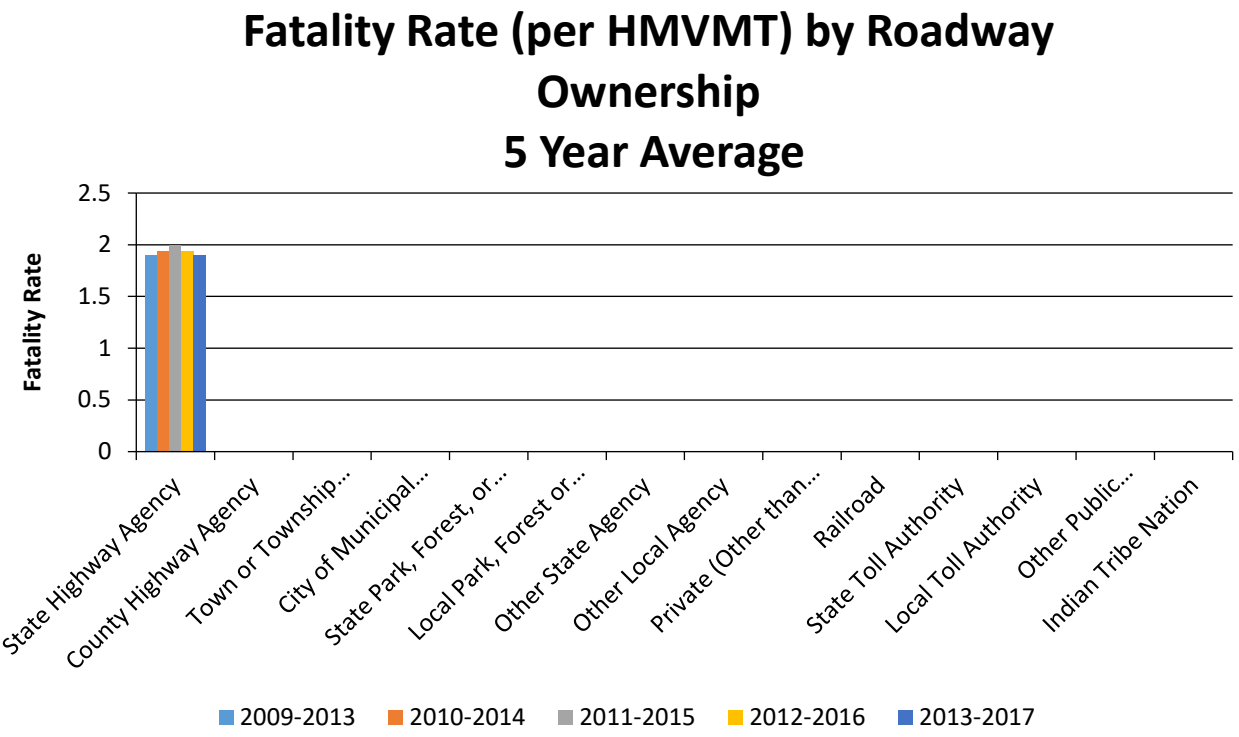

Number of Serious Injuries by Functional Classification
5 Year Average
Serious Injuries
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
RPA - Interstate
RPA - Other Fwys @...
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @...
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017

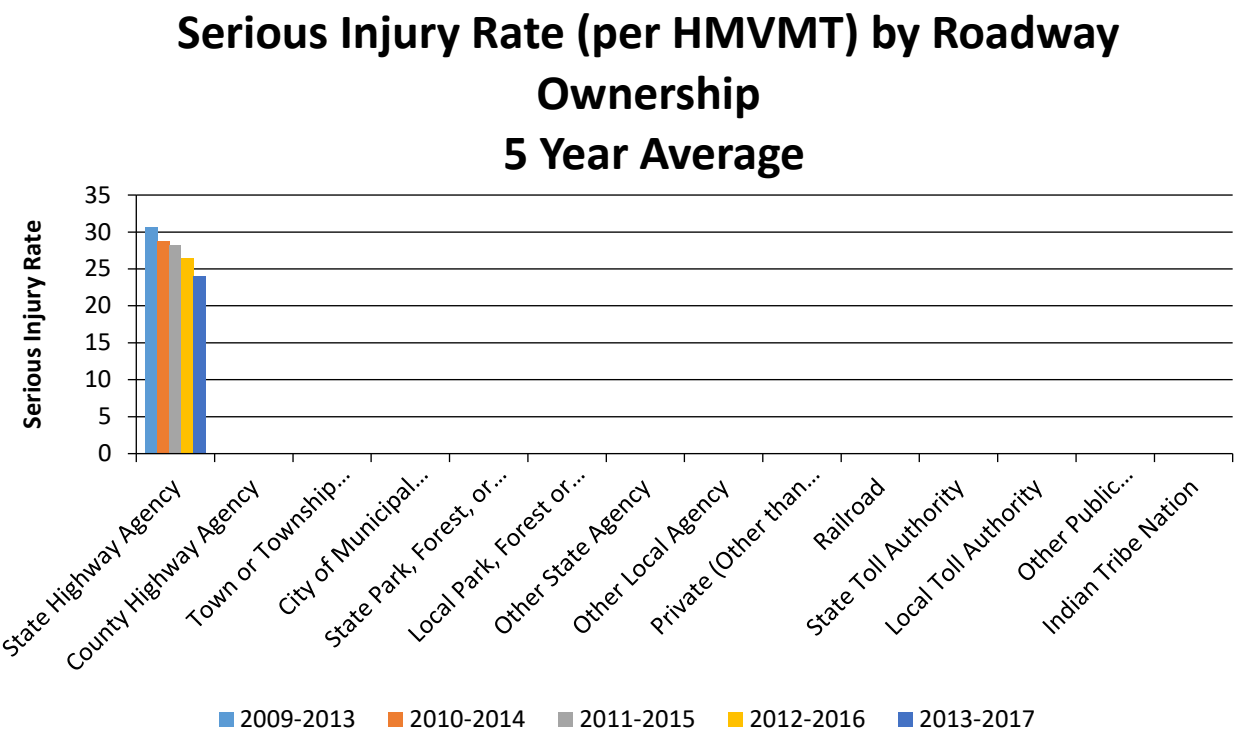

Fatality Rate (per HMVMT) by Functional Classification
5 Year Average
Fatality Rate
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
RPA - Interstate
RPA - Other Fwys @...
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @...
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Serious Injury Rate (per HMVMT) by Functional Classification
5 Year Average
Serious Injury Rate
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
RPA - Interstate
RPA - Other Fwys @...
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @...
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Number of Fatalities by Roadway Ownership
5 Year Average
Fatalities
400
350
300
250
200
150
100
50
0
State Highway Agency
County Highway Agency
Town or Township Highway...
City of Municipal Highway...
State Park, Forest, or...
Local Park, Forest or...
Other State Agency
Other Local Agency
Private (Other than Railroad)
Railroad
State Toll Authority
Local Toll Authority
Other Public Instrumentality...
Indian Tribe Nation
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Number of Serious Injuries by Roadway Ownership
5 Year Average
Serious Injuries
7000
6000
5000
4000
3000
2000
1000
0
State Highway Agency
County Highway Agency
Town or Township...
City of Municipal...
State Park, Forest, or...
Local Park, Forest or...
Other State Agency
Other Local Agency
Private (Other than...
Railroad
State Toll Authority
Local Toll Authority
Other Public...
Indian Tribe Nation
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Fatality Rate (per HMVMT) by Roadway Ownership
5 Year Average
Fatality Rate
2.5
2
1.5
1
0.5
0
State Highway Agency
County Highway Agency
Town or Township...
City of Municipal...
State Park, Forest, or...
Local Park, Forest or...
Other State Agency
Other Local Agency
Private (Other than...
Railroad
State Toll Authority
Local Toll Authority
Other Public...
Indian Tribe Nation
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017



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

Not Applicable.

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 (currently PPR-93). This year, the PRHTA will report the same values of the VMT reported by FHWA. This action was taken to be in accordance with the requirements that NHTSA requested to the PRTSC.

The current crash report (PPR-93) of the Puerto Rico Police (PRP) does not comply with the KABCO injury classification scale. The PRP is developing an advance updated version of the PPR-93; the new PPR-621.4. The PPR-621.4 will be available in a digital form and hard copy and include the KABCO injury classification scale as one of its fields. The serious injuries definition given by the MMUCC also will be included in the new crash report.

Safety Performance Targets

Safety Performance Targets

Calendar Year 2019 Targets *

Number of Fatalities 285.8

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 the Puerto Rico Fatality database. The years considered during the analysis were from 2007 to 2017. To obtain the safety performance target for the number of fatalities it was used and analyzed several trendline options (i.e. exponential, linear, logarithmic, polynomial, and power) to project the fatalities to 2019. After having selected a polynomial trendline of second order with R2 of 92.5%, the projection of the number of fatalities for 2019 is 272.The database used to establish the target for the number of fatalities was from the Puerto Rico Fatality database. The years considered during the analysis were from 2007 to 2017. To obtain the safety performance target for the number of fatalities it was used and analyzed several trendline options (i.e. exponential, linear, logarithmic, polynomial, and power) to project the fatalities to 2019. After having selected a polynomial trendline of second order with R2 of 92.5%, the projection of the number of fatalities for 2019 is 272. Thus, the 5-year moving average safety performance target for the number of fatalities for 2019 is 285.8. The database used to establish the target for the number of fatalities was from the Puerto Rico Fatality database. The years considered during the analysis were from 2007 to 2017. To obtain the safety performance target for the number of fatalities it was used and analyzed several trendline options (i.e. exponential, linear, logarithmic, polynomial, and power) to project the fatalities to 2019. After having selected a polynomial trendline of second order with R2 of 92.5%, the projection of the number of fatalities for 2019 is 272. Thus, the 5-year moving average safety performance target for the number of fatalities for 2019 is 285.8.

Number of Serious Injuries 3822.0

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 2017. 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 2019. After having selected a power trendline with a R2 of 84.6%, the safety performance target for the number of serious injuries was projected to 3,773.0 and the 5-year moving average to 3,822.0, both for 2019.

Fatality Rate 1.786

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 Puerto Rico Fatality Database and the values of the Vehicle Miles Traveled (VMT) reported by

FHWA. The years considered during the analysis were from 2007 to 2017 for Puerto Rico Fatality Database and from 2007 to 2015 for the VMT of FHWA. The number of fatalities for 2019 was projected to 272 after selecting a polynomial trendline of second order with a R2 of 92.5%. The number of the VMT for 2019 was projected to 162.7 after selecting a logarithmic trendline. Thus, the safety performance target for the fatality rate was projected to 1.674 and the 5-year moving average to 1.786, both for 2019.

Serious Injury Rate	22.269

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 values of the Vehicles Miles Traveled (VMT) reported by FHWA. The years considered during the analysis were from 2007 to 2017 for ACAA and from 2007 to 2015 for the VMT of FHWA. The number of serious injuries for 2019 was projected to 3,086.5 after selecting a polynomial trendline of second order. The number of the VMT for 2019 was projected to 162.7 after selecting a logarithmic trendline. Thus, the safety performance target for the serious injuries rate was projected to 18.974 and the 5-year moving average to 22.269, both for 2019.

Total Number of Non-Motorized Fatalities and Serious Injuries	453.0

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 Puerto Rico Fatality Database and ACAA, respectively. The years considered during the analysis were from 2007 to 2017 for both databases. The number of fatalities plus serious injuries for 2019 was projected to 455 after selecting a logarithmic trendline for both fatalities and serious injuries values with a R2 of 82.1% and 68.9%, respectively. Thus, the 5-year moving average safety performance target for the non-motorized number of fatalities plus serious injuries was projected to 453.0. This target is already part of the Puerto Rico SHSP's emphasis areas.

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

Not Applicable.

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

During this reporting period, Puerto Rico defined the safety performance targets for 2019 in closed coordination with the SHSP Steering Committee (PRDTPW, PRTSC, and PRHTA). In addition, following FHWA Rule 23 CFR 490, these targets were submitted by letter to the Metropolitan Planning Organizations (MPO) and the PRHTA performed a meeting with them to determine Puerto Rico's safety targets for 2018.

2018 Puerto Rico Highway Safety Improvement Program
On January 17, 2018, the PRHTA's Highway Safety Office, presented the SHSP's safety targets for the five (5) performance measures reported. The MPO had two (2) alternatives upon this decision: (1) agree with the safety target settings established for the SHSP, or (2) commit with new targets for the MPO. After consulting the Puerto Rico's MPOs, all the SHSP safety targets for 2018 were approved. Thus, the MPOs adopted the safety targets of the Puerto Rico SHSP.

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.

Not Applicable.

Applicability of Special Rules

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

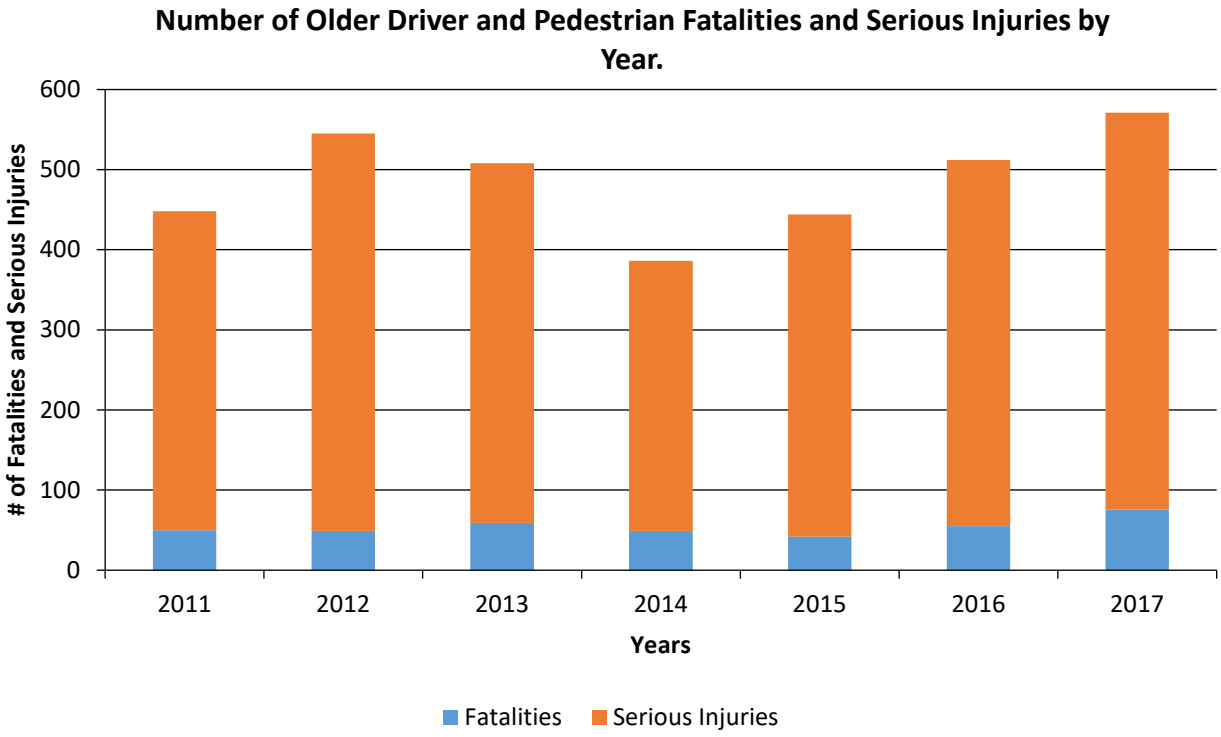
No

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

Not Applicable.

Provide the number of older driver and pedestrian fatalities and serious injuries 65 years of age and older for the past seven years.

PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017
Number of Older Driver and Pedestrian Fatalities	50	49	59	49	42	55	76
Number of Older Driver and Pedestrian Serious Injuries	398	496	449	337	402	457	495



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

Not Applicable.

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.

Not Applicable.

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 2016. 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 six (6) highway safety projects. The projects consist of four (4) milled shoulder rumble strips installation, one (1) geometric improvements and one (1) intersection improvement. The four (4) milled shoulder rumble strips improvement projects showed a reduction of fatal and injury crashes between 11.0 % - 96.4%. The geometric improvement project showed a reduction of injury crashes of 80%. In addition, the intersection improvement showed an increase in injury crashes of 180%. This increment was reflected in rear-end crashes (i.e. two vehicles, aggressive driving behavior) due the installation of a new traffic signal system. PRHTA is evaluating periodically the data for the intersection to decide if new countermeasures need to be implemented. The general results showed that HSIP program level evaluations are obtaining positive 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.

Not Applicable.

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

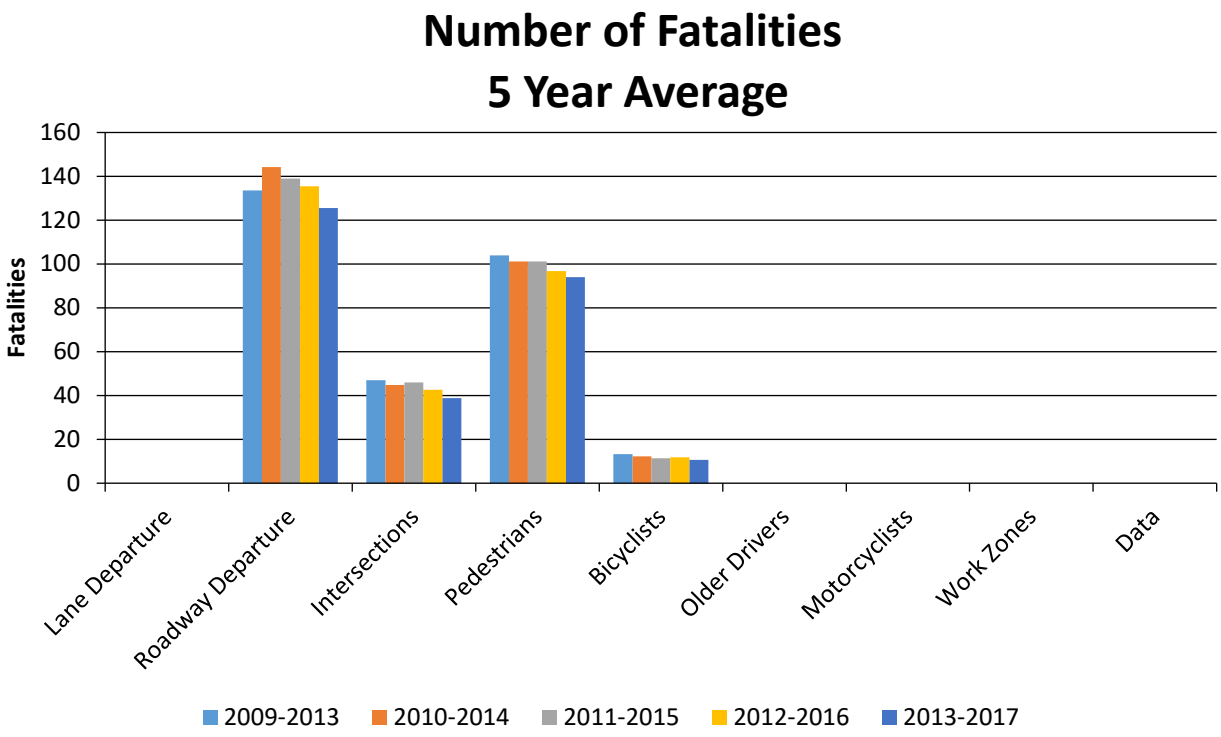
No

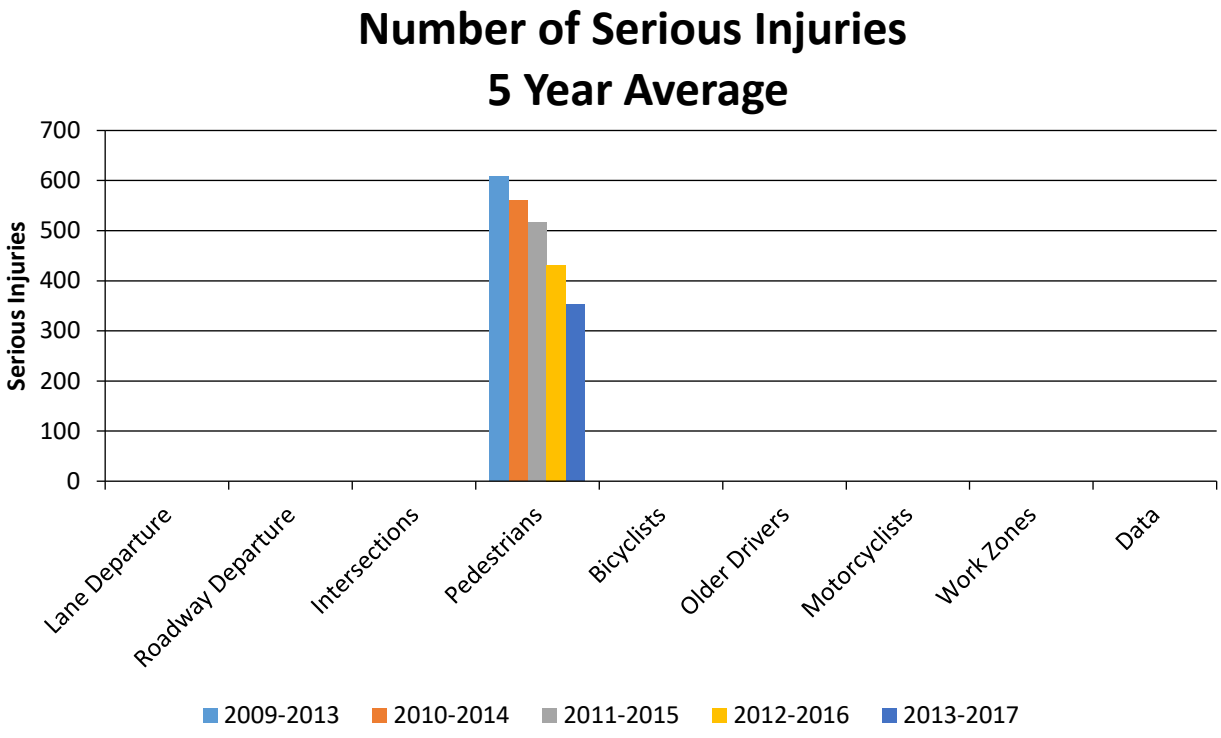
Effectiveness of Groupings or Similar Types of Improvements

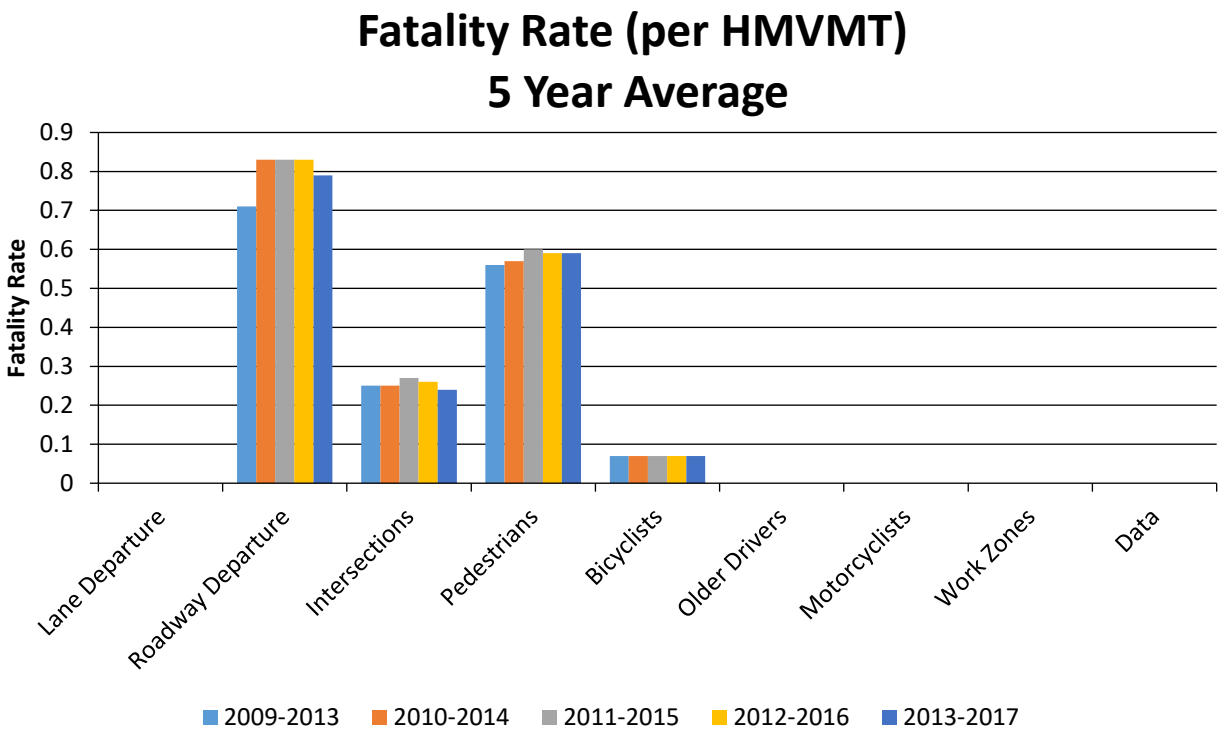
Present and describe trends in SHSP emphasis area performance measures.

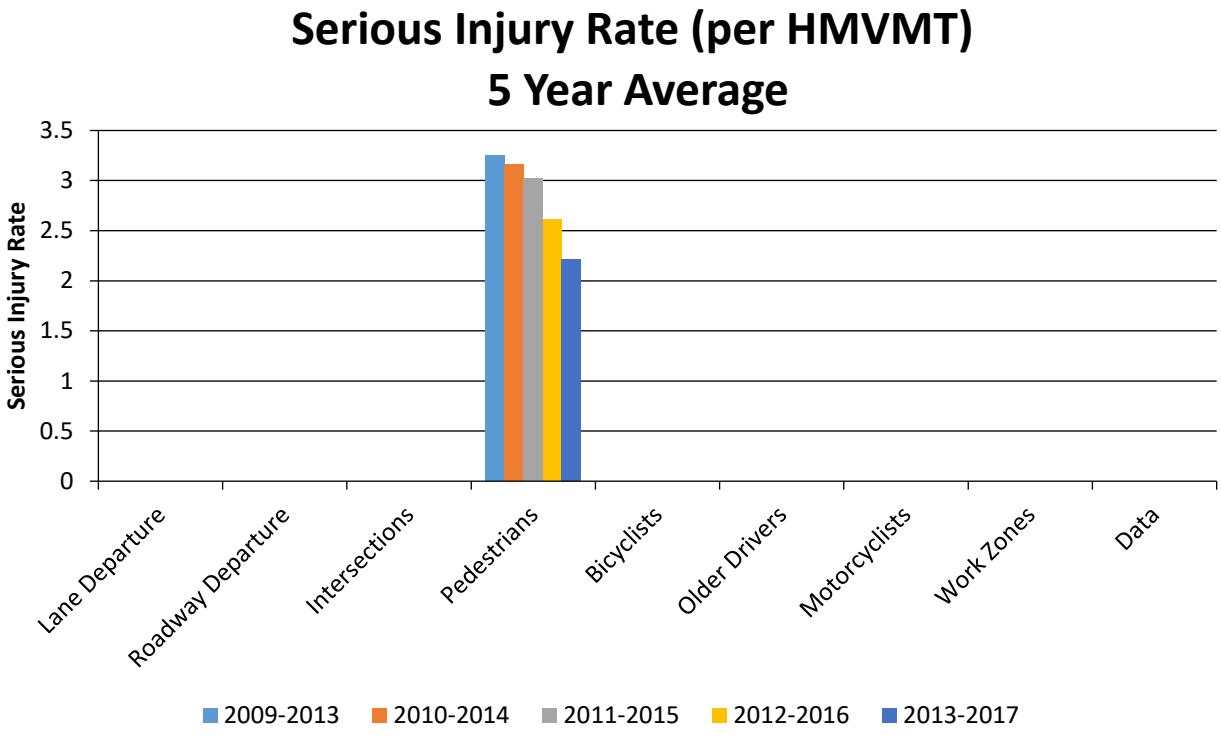
Year 2017

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
Lane Departure		0	0	0	0	0	0	0
Roadway Departure		125.6	0	0.79	0	0	0	0
Intersections		38.8	0	0.24	0	0	0	0
Pedestrians		94	352.6	0.59	2.21	0	0	0
Bicyclists		10.6	0	0.07	0	0	0	0
Older Drivers		0	0	0	0	0	0	0
Motorcyclists		0	0	0	0	0	0	0
Work Zones		0	0	0	0	0	0	0
Data		0	0	0	0	0	0	0


Number of Fatalities
5 Year Average
Fatalities
160
140
120
100
80
60
40
20
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Number of Serious Injuries
5 Year Average
Serious Injuries
700
600
500
400
300
200
100
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017





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

Not Applicable.

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

2018 Puerto Rico Highway Safety Improvement Program

No

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

Not Applicable.

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 OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
PR-22 Km 11.4-84.3	Rural Principal Arterial (RPA) - Interstate	Roadway	Rumble strips - edge or shoulder			20.00	10.00			1541.00	1183.00	1561.00	1193.00	
PR-52 Km 82-107	Rural Principal Arterial (RPA) - Interstate	Roadway	Rumble strips - edge or shoulder			9.00	7.00			601.00	536.00	610.00	543.00	
PR-53 Km 0-40	Rural Principal Arterial (RPA) - Interstate	Roadway	Rumble strips - edge or shoulder			2.00	4.00			251.00	203.00	253.00	207.00	
PR-60 Km 0-2.9	Rural Principal Arterial (RPA) - Other Freeways and Expressways	Roadway	Rumble strips - edge or shoulder				1.00			28.00		28.00	1.00	
PR-100 w. Plan Bonito	Rural Principal Arterial (RPA) - Other	Roadway signs and traffic control	Roadway signs and traffic control - other							5.00	14.00	5.00	14.00	
PR-1 w. PR-765	Rural Minor Arterial	Roadway delineation	Delineators post-mounted or on barrier							5.00	1.00	5.00	1.00	

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

Not Applicable.

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 evaluating the HSIP effectiveness in Puerto Rico based on two criteria: length of roadway segments impacted by highway safety improvement projects and performing before and after studies (B&A Studies) for qualified highway safety improvement projects. These projects shall have, at least, three (3) years of crash data before and after their construction duration. These studies help PRHTA to identify trends in the most effective countermeasures. Also, the B&A Studies are guiding PRHTA to define b/c analysis for local safety improvement projects in the near future. Another significant aspect during this reporting period is the close coordination between the highway programs, leading to maximizing the use of funds. Currently, the safety improvements are not only associated to highway safety improvement projects, but are part of other highway programs, as pavement or bridges. At the end, this approach resulted in more roadways improved by new or updated pavement marking, signs, barriers, crash cushions, raised pavement markings, etc.

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.

This is the link of the Puerto Rico SHSP: http://carreteraseguraprc.com/

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

	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
MIRE NAME (MIRE NO.)	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								

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				

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**

*Based on Functional Classification

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

Not Applicable.

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 developed the MIRE FDE Action Plan and submitted as part of the Traffic Records Coordinating Committee (TRCC) Action Plan in July 2017. During this reporting period, PRHTA defined a traffic data team with the following PRHTA offices: Highway Safety Projects, Highway Systems, Traffic Data Gathering, and GIS/HPMS. Each one of these offices are responsible for the official traffic data of every roadway segment and intersection in Puerto Rico. The PRHTA traffic data team have several coordination and information meetings during this period. Based on the aspects discussed, this is the advance plan to achieve the collection of the MIRE FDE for 2026:

Phase 1 - Develop the list of roadway segments, intersections, and ramps to be included in the Puerto Rico MIRE FDE database, including GIS. Originally, this plan considered an outsource or private consultant to develop the spreadsheet of roadway segments, ramps, and intersections where MIRE FDE will be obtained. Currently, the PRHTA had some delays regarding that contract and is planning to move forward soon and obtain the necessary contract to prepare the required database (warehouse of the MIRE FDE). However, the Traffic Engineering and Operations Area have the list of signalized intersections and other offices are searching for the available and pertinent data to help move forward with this task.

Phase 2 - MIRE FDE data gathering. This phase has made some progress since the Traffic Data Gathering Office has published a RFP meeting this purpose. PRHTA is considering to use HSIP funds to support the data collection for the traffic volumes in Puerto Rico. Still, PRHTA will be publishing more RFPs to receive the support from consultants 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. Programs within the PRHTA and PRTSC 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 PRP crash report form is a paper form since 1988 to the present. Between the 2010 and 2014, the PRP crash report form was updated for comply with an 85% of the fourth edition of the MMUCC, including the suspected serious injury definition and the KABCO injury severity scale. In addition, from 2016 to the present, the PRP is currently conducting a pilot program to be completed in 2019 with the updated crash report PPR-621.4. This updated version may be used in digital form, which will improve the speed and quality of the data to be received. To become compliant for 2019, the PRP is coordinating the development of the curriculum for the training course, for state and municipal police officers, and the communication between the data servers of the PRP and PRHTA.

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.

2019

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

PRHTA was planning to complete the HSIP program assessment for 2018, but the recovery efforts due to hurricanes Irma and Maria modify the original due date for 2019.

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.