

# Make Your Mark



## A Local Safety Peer Exchange

Daniel LiSanti, Manager NJDOT Bureau of Safety, Bicycle and Pedestrian Programs

Keith Skilton, FHWA NJ Division Highway Safety Improvement Program

# Welcome

## Event Overview

- Agenda
- Housekeeping
- Expectations

## AGENDA

8:00-8:15AM	Registration
8:15-9:00AM	Introductions
9:00-9:10AM	Welcoming Remarks Mary D. Ameen, NJTPA Executive Director
9:10-9:40AM	NJ's Safety Performance Targets: Why It Matters Daniel LiSanti and Keith Skilton
9:40-10:40AM	Safety Voyager Overview and Monmouth County Demonstration Chris Zajac and Vince Cardone
10:40-10:55AM	<b>Break</b>
10:55-11:25AM	Understanding Substantive vs. Nominal Approaches to Design John McFadden
10:25-11:45AM	Breakout Sessions
11:45AM-12:30PM	<b>Lunch</b>
12:30-1:00PM	Somerset County's Approach to Systemic Safety Improvements Tricia Bates Smith
1:00-1:30 PM	Princeton's Approach to Traffic Calming Deanna Stockton
1:30-2:00 PM	FHWA's 2017 Update of the Proven Safety Countermeasures Karen Scurry
2:00-2:15PM	<b>Break</b>
2:15-3:00 PM	Breakout Sessions and Next Steps Planning
3:00-3:45PM	Attendee Report Outs Review of Breakout Discussion Questions

# Ground Rules



Participate

STAY FOCUSED



Please Stay on Task



Parking Lot



Be on Time



Limit sidebar  
conversations



Silence Cell  
Phones

# Introductions

- ▶ Name
- ▶ Organization
- ▶ Position
- ▶ Role with Respect to Local Safety Program

# Welcome

Mary D. Ameen  
Executive Director  
NJTPA

# Today's Take-Aways.....

- ▶ NJ's Zero Death Vision & Safety Performance Targets
- ▶ Pedestrian & Intersection Focus State
- ▶ NJ Design Manual Compliance ~~=~~ Maximum Safety Benefit
- ▶ Partnering WE CAN MAKE A POSITIVE DIFFERENCE FOR SAFETY!

# Safety Target Setting

Five Performance Measures	
✓	Number of Fatalities
✓	Rate of Fatalities per 100 Million VMT
✓	Number of Serious Injuries
✓	Rate of Serious Injuries per 100 Million VMT
✓	Number of Non-motorized Fatalities and Non-motorized Serious Injuries



State of New Jersey

DEPARTMENT OF TRANSPORTATION  
P.O. Box 600  
Trenton, New Jersey 08625-0600

CHRIS CHRISTIE  
Governor

KIM GUADAGNO  
Lt. Governor

RICHARD T. HAMMER  
Commissioner

May 3, 2017

Robert Clark, Division Administrator  
Federal Highway Administration, New Jersey Division  
840 Bear Tavern Road, Suite 202  
West Trenton, NJ 08628

Dear Mr. Clark:

I am pleased to provide New Jersey's 2018 Safety Performance Targets required to be reported for the Highway Safety Improvement Program. The New Jersey Department of Transportation (NJDOT) intends to include these targets in New Jersey's Annual Safety Report this year. These targets were established after careful consideration of previous trends, recently built projects and the current socioeconomic environment.

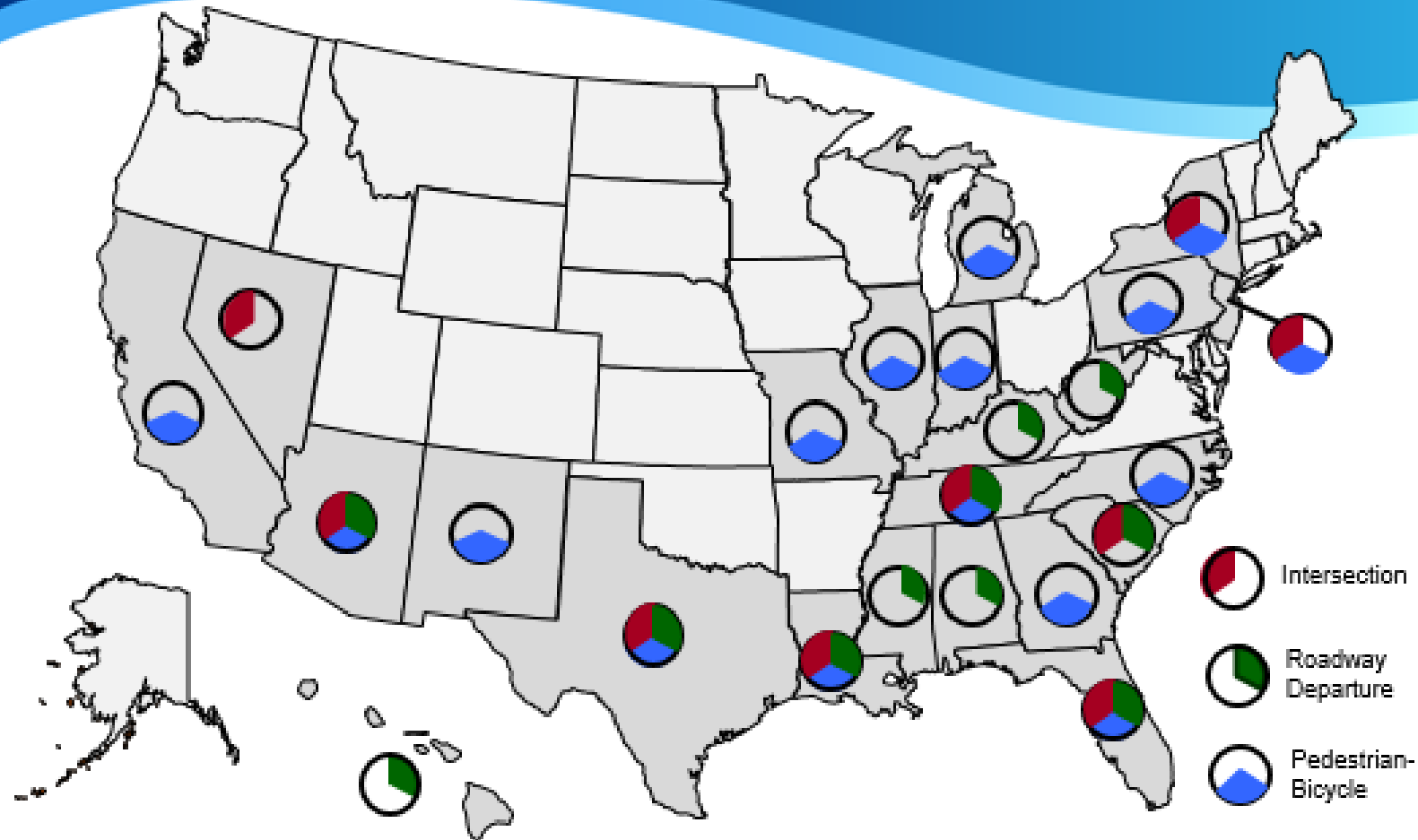
To satisfy 23 CFR 924.15(a)(1)(iii)(B) requirements, the following are the targets set by New Jersey Department of Transportation for 2018 Safety Performance Measures:

PERFORMANCE MEASURE	TARGET 5 YEAR ROLLING AVERAGE	2014-2018 5 YEAR ROLLING AVERAGE	BASELINE 2012-2016 5 YEAR ROLLING AVERAGE
NUMBER OF FATALITIES	555.0		571.0
FATALITY RATE	0.778		0.762
NUMBER OF SERIOUS INJURIES	1105.0		1135.0
SERIOUS INJURY RATE	1.467		1.516
NUMBER OF NON-MOTORIZED FATALITIES AND SERIOUS INJURIES	385.5		390.3

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# Intersection & Pedestrian Focus State

## 2015 Focus States



# HSIP Purpose & Components

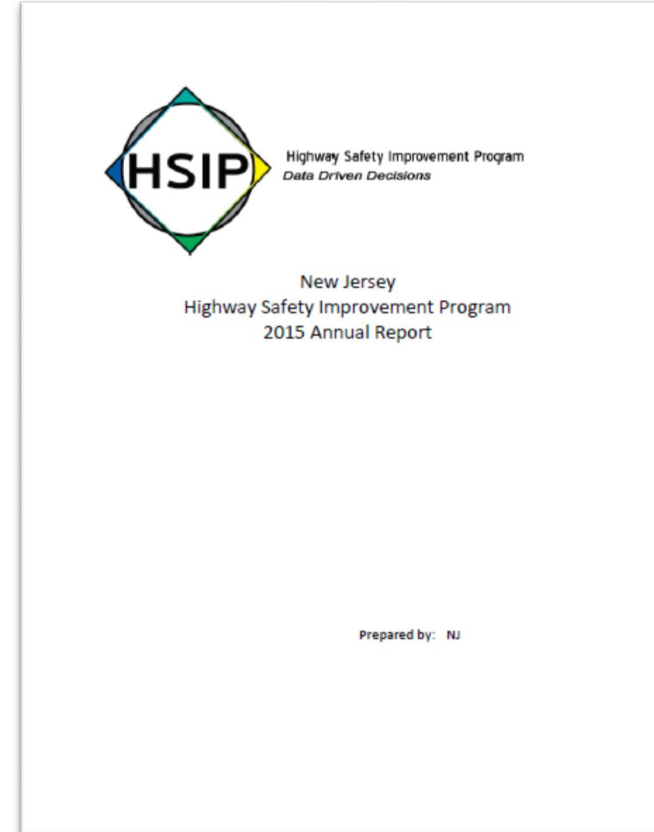
- ▶ Rail Highway Grade Crossing Program set-aside
- ▶ Highway Safety Improvement Program

***Achieve significant reduction in fatalities & serious injuries on ALL PUBLIC ROADS.***

# Highway Safety Improvement Program

- ▶ Strategic Highway Safety Plan
- ▶ Data Driven All Public Roads
- ▶ Safety Target Setting  
Performance Measures
- ▶ Annual Safety Reporting

***Achieve significant reduction in  
fatalities & serious injuries on ALL  
PUBLIC ROADS.***



# NJ's SHSP - PLAN



- ▶ Updating every 5 years
- ▶ Statewide Plan - all 4 E's
- ▶ Signed by Governor or Governor's Representative
- ▶ Overall Goal for NJ
- ▶ HSIP project eligibility dependent upon identified element in SHSP

***“Vision without action is a dream,  
Action without vision is a nightmare.”***

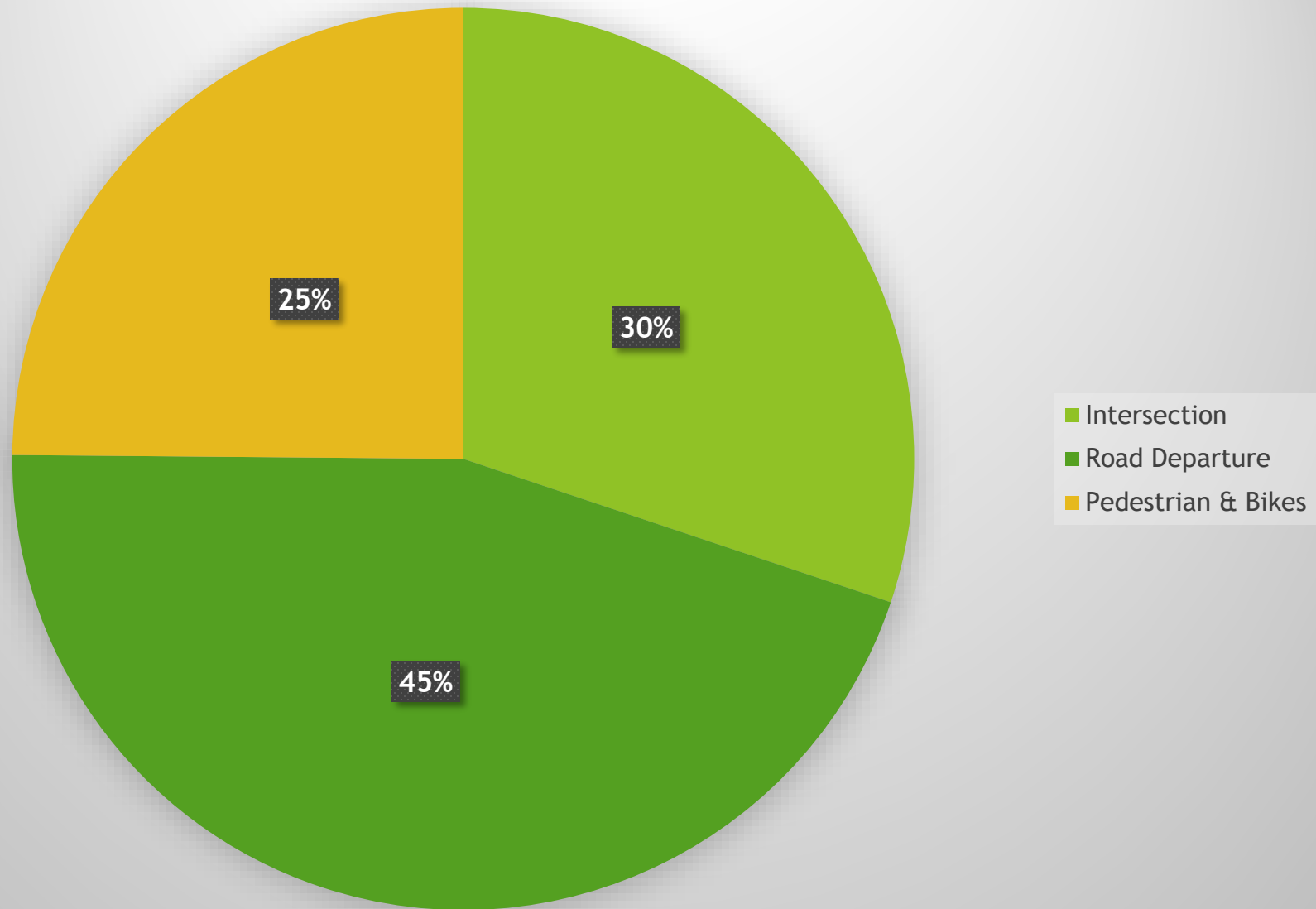
TABLE 3-1

Distribution of Roadway Miles and Fatalities and Serious Injuries By Jurisdiction, Facility Type, and Crash Type

	State Road System					Local Road System		Other	Statewide
	Interstate	State Highway				County	Municipal		
		Total	Urban	Rural	Unknown				
Roadway Length	State: 2,757 miles (7%)					Local: 35,820 miles (89%)			
Miles	—	—	—	—	—	6,826	28,994	1,719	40,296
% Total Miles	—	—	—	—	—	17%	72%	4%	100%
Total Fatalities and Serious Injuries	State: 3,265 (33%)					Local: 5,735 (57%)			
Number	413	2,852	2,284	282	286	3,385	2,350	1,037	10,037
% Total Fatalities and Serious Injuries	4%	28%	23%	3%	3%	34%	23%	10%	100%
Lane Departure	State: 1,515 (33%)					Local: 2,569 (56%)			
Number	272	1,243	936	184	123	1,658	911	512	4,596
% Total Fatalities and Serious Injuries	6%	27%	20%	4%	3%	36%	20%	11%	100%
Intersections	State: 1,002 (33%)					Local: 2,028 (66%)			
Number	10	992	831	78	83	1,215	813	50	3,080
% Total Fatalities and Serious Injuries	0%	32%	27%	3%	3%	39%	26%	2%	100%
Pedestrians/Bicycles	State: 709 (28%)					Local: 1,565 (62%)			
Number	44	665	590	15	60	815	750	266	2,540
% Total Fatalities and Serious Injuries	2%	26%	23%	1%	2%	32%	30%	10%	100%

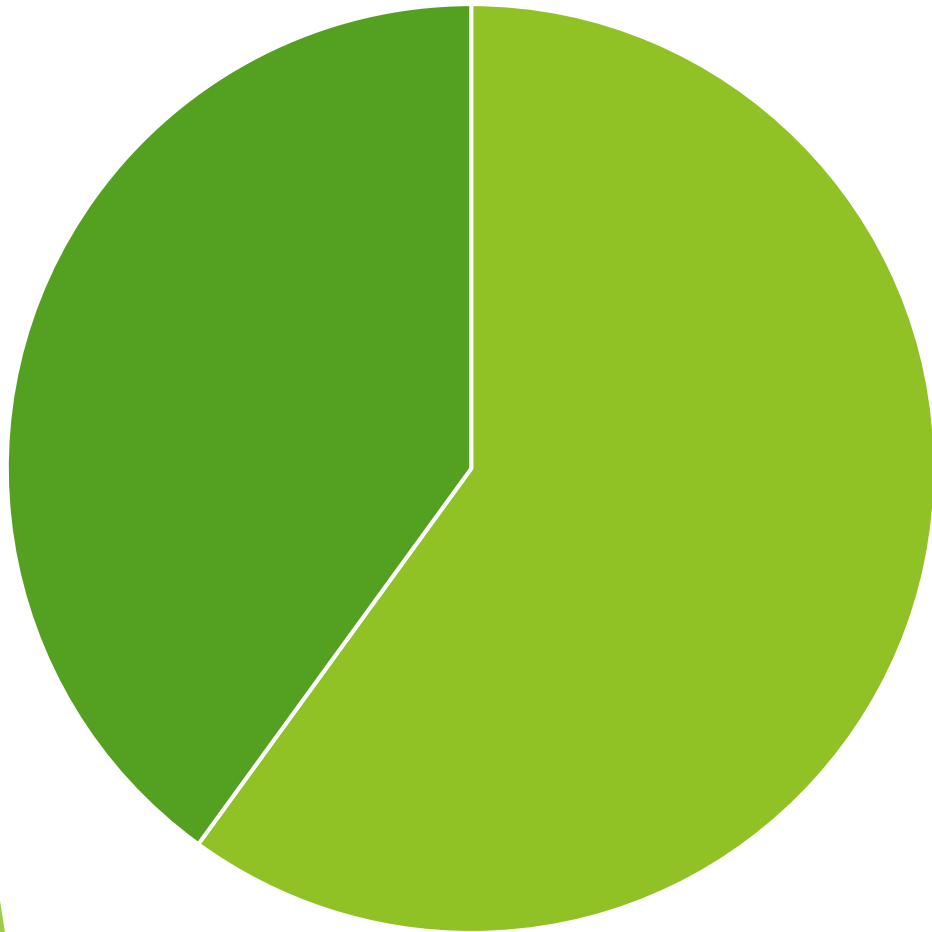
NJ's Data

## Fatalities & Serious Injuries



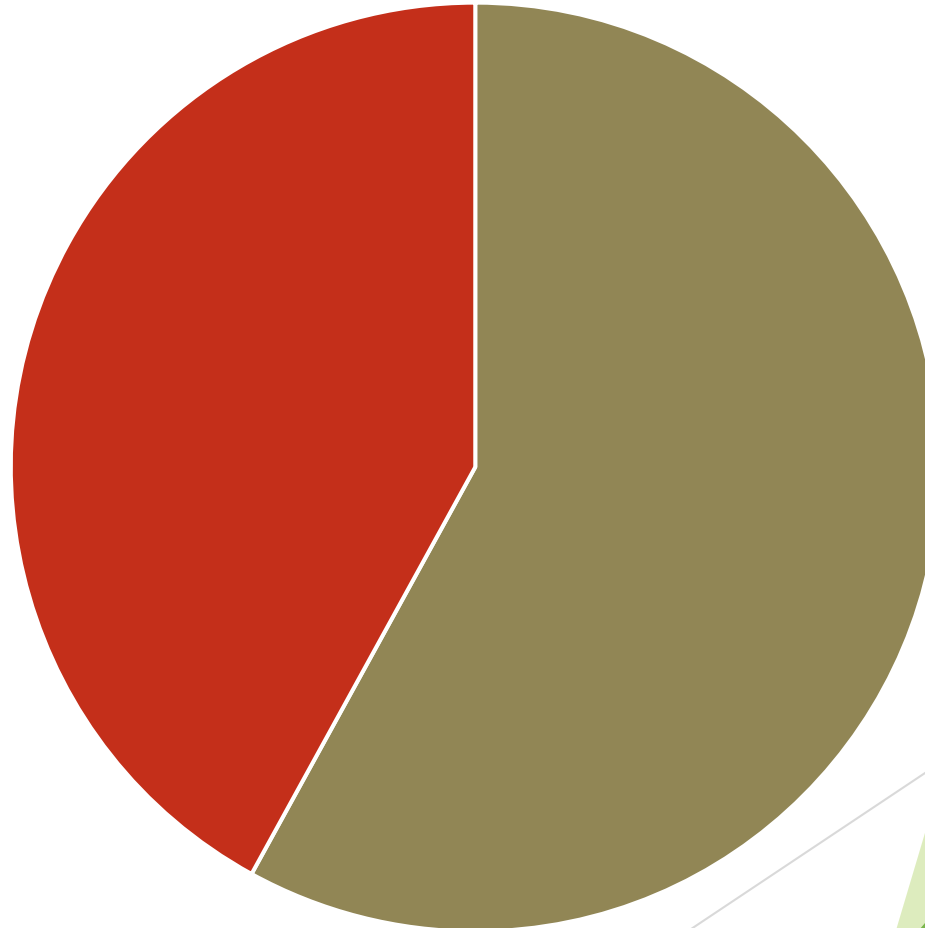
# HSIP Performance: Local Versus State Roads

F&I Crashses



■ Local Roads ■ State Roads

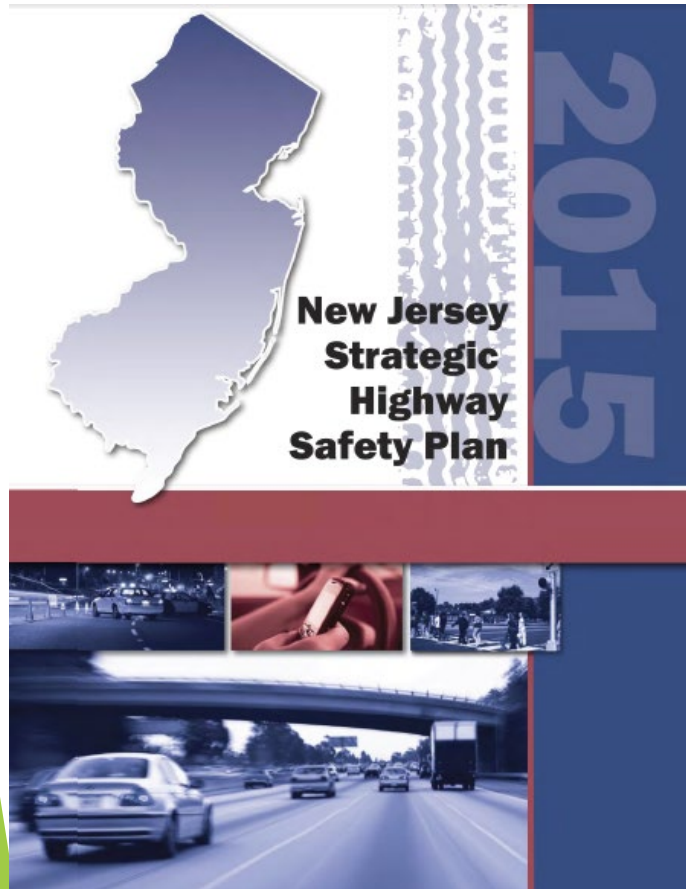
HSIP \$ Expenditures



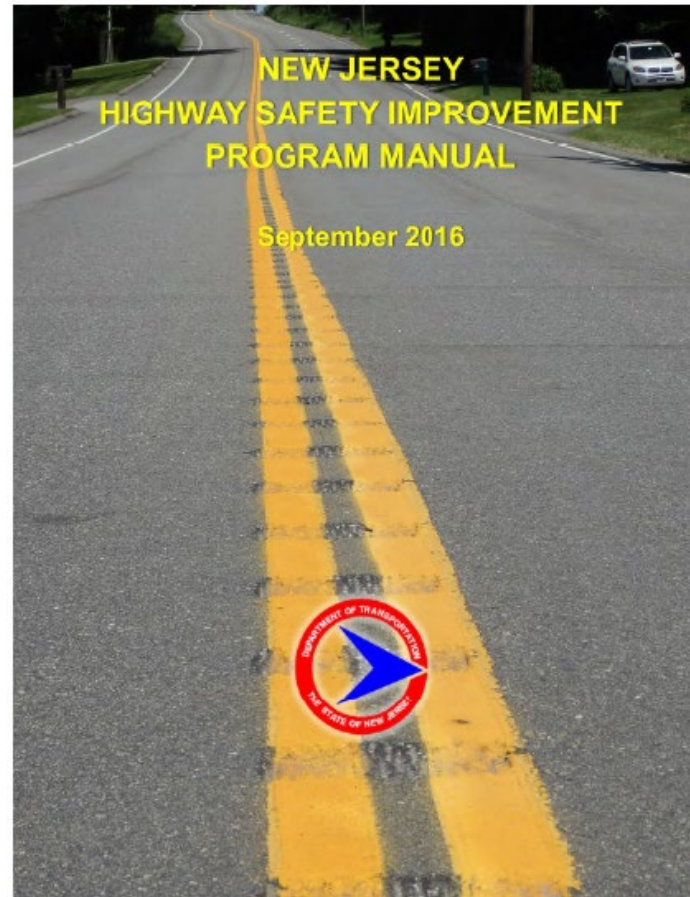
■ Local Roads ■ State Roads

# NJ HSIP Manual

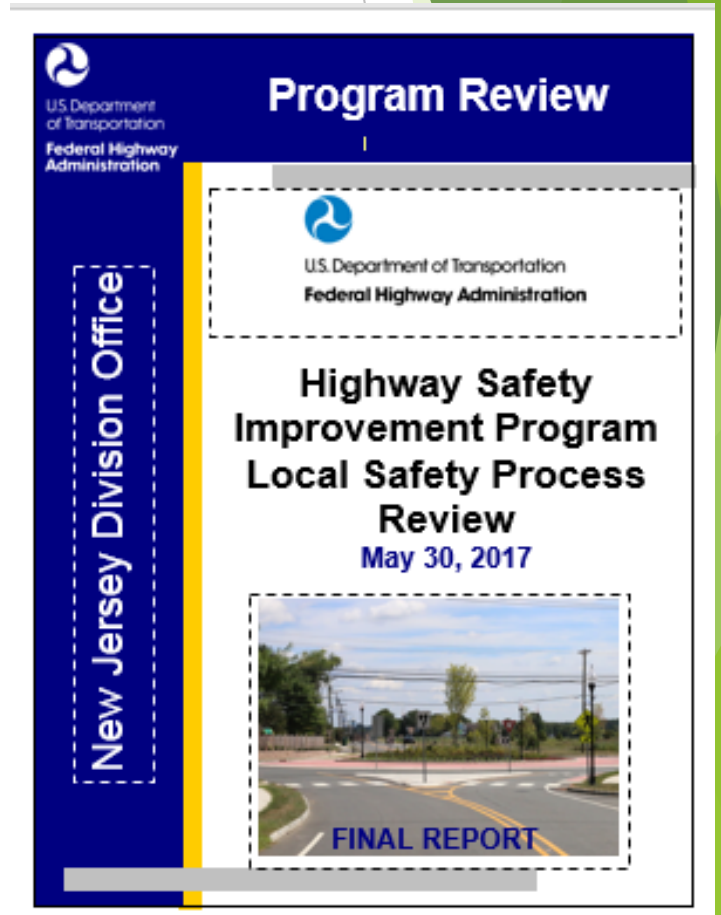
## NJ LSP Assessment Findings Observations



Plan



Process



Evaluation

# Data Driven

- ▶ Network Screening
  - ▶ Severity
  - ▶ Types of Crashes
- ▶ Safety Voyager
- ▶ Project Approaches
  - ▶ Hot Spot
  - ▶ Systemic



# Substantive Vs. Nominal Safety

Standards Approach yields updated traffic signal Versus...

## Intersection List

12/5/2017

### NJDOT BUREAU OF SAFETY PROGRAMS TOP 174 HIGH PRIORITY INTERSECTION CRASH LOCATIONS BY TOTAL SEVERITY FOR 2006-2008

ID#	RANK	SRI	LOCATION	MP	CROSS STREET	Status	CO	MU	FREQ	TOTAL SEVERITY	NO. FATAL	NO. INCAP.	NO. MOD.	NO. PAIN	NO. PDO
1	1	00000028__	NJ 28	2.25	RT 202 (Somerville Circle) (See also #162)	C	18	06	140	159	0	0	1	21	118
2	2	00000001__	US 1	45.44	CR 624 (North Ave.)	B,C	20	04	98	142	0	1	10	26	61
3	3	00000030__	US 30	13.55	CR 686 (Clementon-Gibbsboro Rd.)	B	04	11	72	118	0	1	8	27	36
4	4	16000602__	CR 602 (Allwood Rd.)	1.29	CR 622 (Bloomfield Ave.) (Circle)	B	16	02	95	111	0	0	2	13	81
5	5	20000638__	CR 638 (Valley Rd.)	0	NJ 124	B	20	19	80	106	0	0	1	24	55
6	6	020000561__	CR 1 (Essex St.)	3.46	NJ 17	C	02	31	84	103	0	0	1	17	66
7	7	00000030__	US 30	9.71	CR 544 (Evesham Rd.)	B,C	04	23	68	102	0	0	5	24	39
8	8	00000030__	US 30	46.45	CR 575 (Pomona Rd.)	C	01	11	52	99	0	1	10	24	17
9	9	20000626__	CR 626 (W. Chestnut St.)	0	US 22	C	20	19	70	98	0	0	1	26	43
10	10	00000034__	NJ 33	35.85	RT 34 (Wall Circle)	C	13	52	85	97	0	0	2	8	75
11	11	00000035__	NJ 35	29.39	RT 36	B,C	13	11	53	96	0	0	5	18	30
12	12	00000082__	NJ 82	0.78	CR 637 (Liberty Ave.)	B	20	19	63	87	0	0	4	16	43
13	13	00000001__	US 1	11.27	CR 571 (Wash.Rd.) (Penns Neck Circle)	B,C	11	13	68	86	0	0	4	10	54
14	14	00000046__	US 46	60.24	RT 3	C?	16	02	62	84	0	1	4	11	46
15	15	00000001__	US 1	40.74	CR 615 (Stiles Ave.)	B	20	09	64	83	0	0	4	11	49
16	16	00000555__	CR 555 (Tuckahoe Rd.)	33.4	CR 689 (Cross Keys Bypass)		08	18	42	78	0	0	9	18	15
17	17	00000001__	US 1	45.14	FAIRMOUNT AVE	C	20	04	53	75	0	2	1	14	36
18	18	01000684__	CR 684 (Spruce Ave.)	2.59	WEST JERSEY AVENUE		01	08	41	72	1	1	5	14	20
19	T19	00000010__	NJ 10	18.74	CR 609 (Eisenhower Pkwy.) (Circle)	C	07	10	56	71	0	0	1	13	42
20	T19	18000655__	CR 655 (Park Ave.)	0.13	BONNIE BURN ROAD	C	18	21	59	71	0	0	1	10	48
21	21	00000038__	NJ 38	3.86	CR 616 (Church-Coles-Cooper Rd.)	B	04	09	46	70	0	3	2	11	30
22	22	20000613__	CR 613 (Central-Brant Ave.)	4.46	GARDEN STATE PARKWAY		20	02	51	69	0	1	0	15	35
23	T23	20121299__	CLINTON AVE	0.46	THIRD ST		20	12	45	68	0	0	2	19	24
24	T23	00000001__	US 1	39.25	CR 608 (E.Milton-Turner-Paterson St.)		20	13	50	68	0	0	2	14	34
25	T23	00000001__	US 1	42.65	CR 616 (Park Ave.)	C	20	09	48	68	0	1	1	15	31
26	T23	00000009W__	US 9W	0	KELBY STREET	B	02	19	63	68	0	0	1	3	59
27	T23	00000031__	NJ 31	6.09	CR 546 (Wash.Xing-Penn.Rd.)(Circle)	C	11	06	58	68	0	0	2	5	52
28	28	00000027__	NJ 27	32.65	CR 616 (Park Ave.)	B	20	09	41	67	0	0	5	16	20

# Maximizing Safety Benefits with Infrastructure Investments

http://www.cmfclearinghouse.org/results.cfm

View Favorites Tools Help

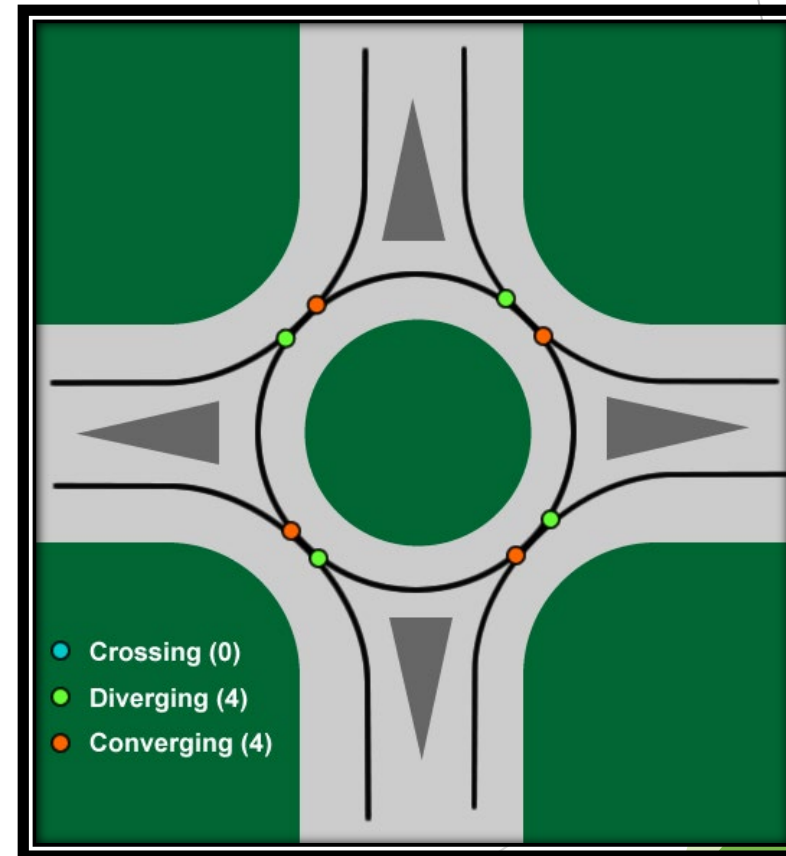
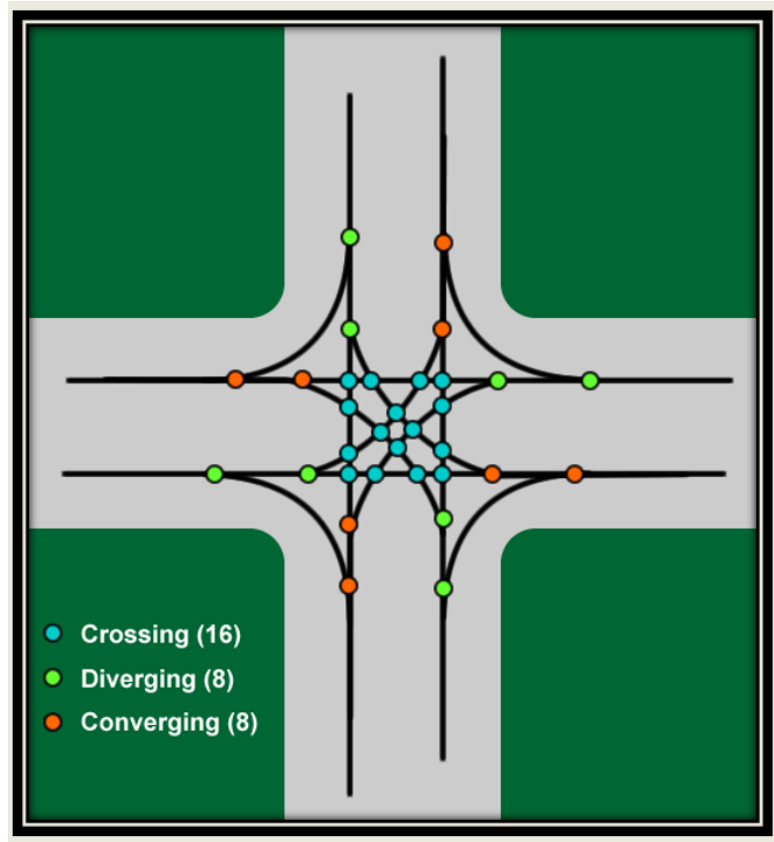
Countermeasure: Conversion of no control/yield intersection into single- or multi-lane roundabout

Countermeasure: Conversion of signalized intersection into single- or multi-lane roundabout

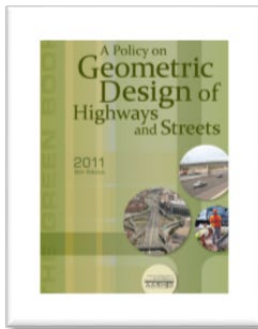
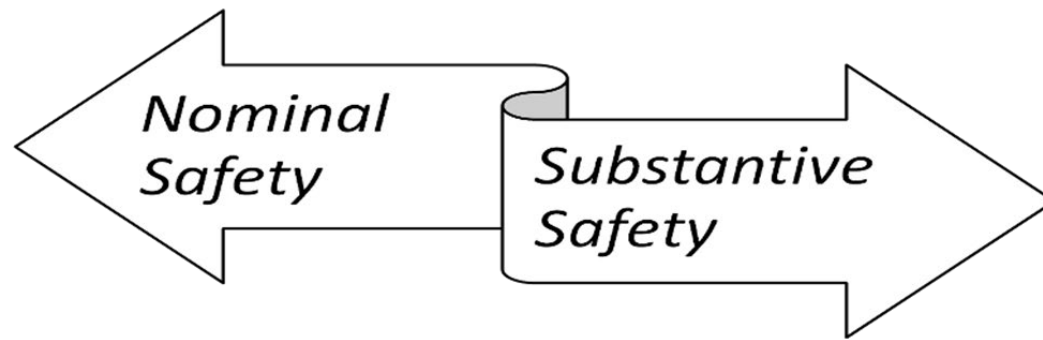
Compare	CMF	CRF (%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	0.81	19	★★★★☆	All	All	Urban and suburban	Gross et al., 2012	Conversion to 2-lane roundabout ... <a href="#">[read more]</a>
<input type="checkbox"/>	0.29	71	★★★★☆	All	A,B,C	Urban and suburban	Gross et al., 2012	Conversion to 2 lane roundabout ... <a href="#">[read more]</a>
<input type="checkbox"/>	0.74	26	★★★★☆	All	All	Urban and suburban	Gross et al., 2012	Conversion to one lane roundabout ... <a href="#">[read more]</a>
<input type="checkbox"/>	0.955	4.54	★★★★☆	All	All	All	Qin et al., 2013	- Study included three-year before ... <a href="#">[read more]</a>
<input type="checkbox"/>	1.92	-92	★★★★☆	All	All	Not specified	Russo et al., 2014	
<input type="checkbox"/>	0.65	35	★★★★☆	All	All	Urban	Persaud et al., 2001	
<input type="checkbox"/>	0.26	74	★★★★☆	All	A,B,C	Urban	Persaud et al., 2001	

**TRAFFIC  
SIGNAL TO TWO  
LANE  
ROUNDBABOUT  
71%  
REDUCTION  
INJURY  
CRASHES**

# The difference between conflicts

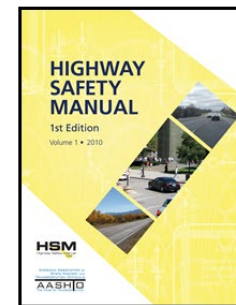


# Nominal Versus Substantive

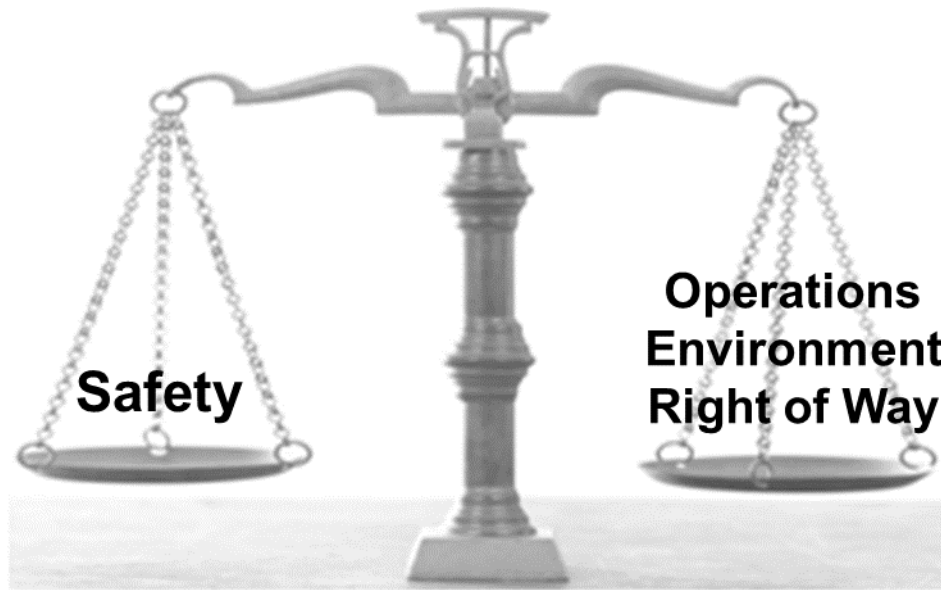


Compliance  
with  
standards,  
warrants,  
guidelines

Predicted  
crashes  
frequency &  
severity



# Balancing Project Needs

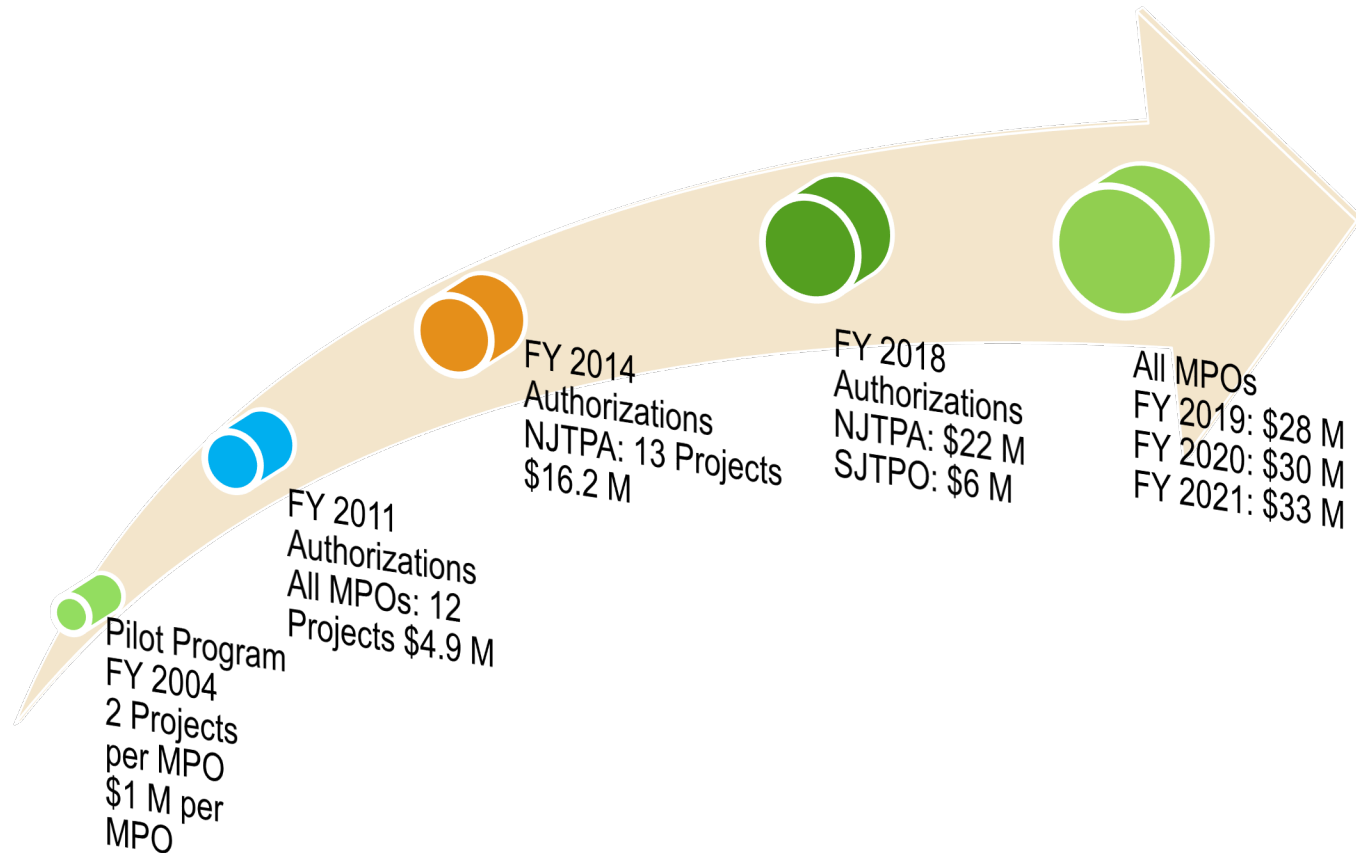


# Continuing Evolution of Safety Programs

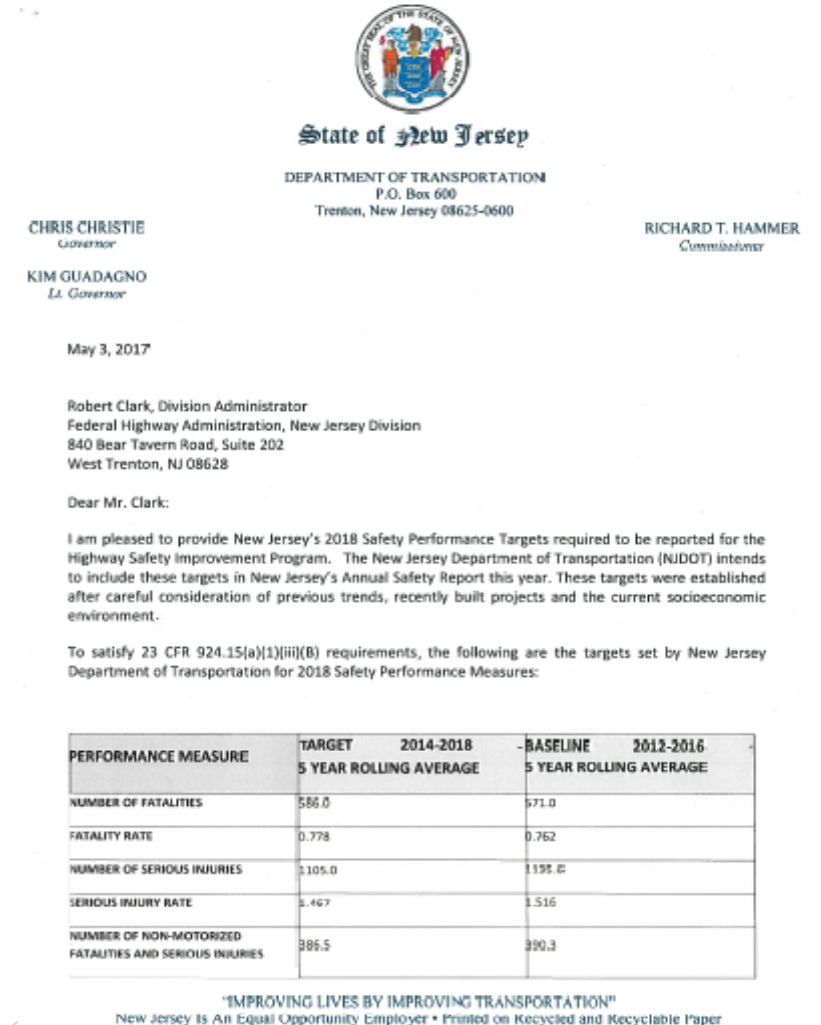
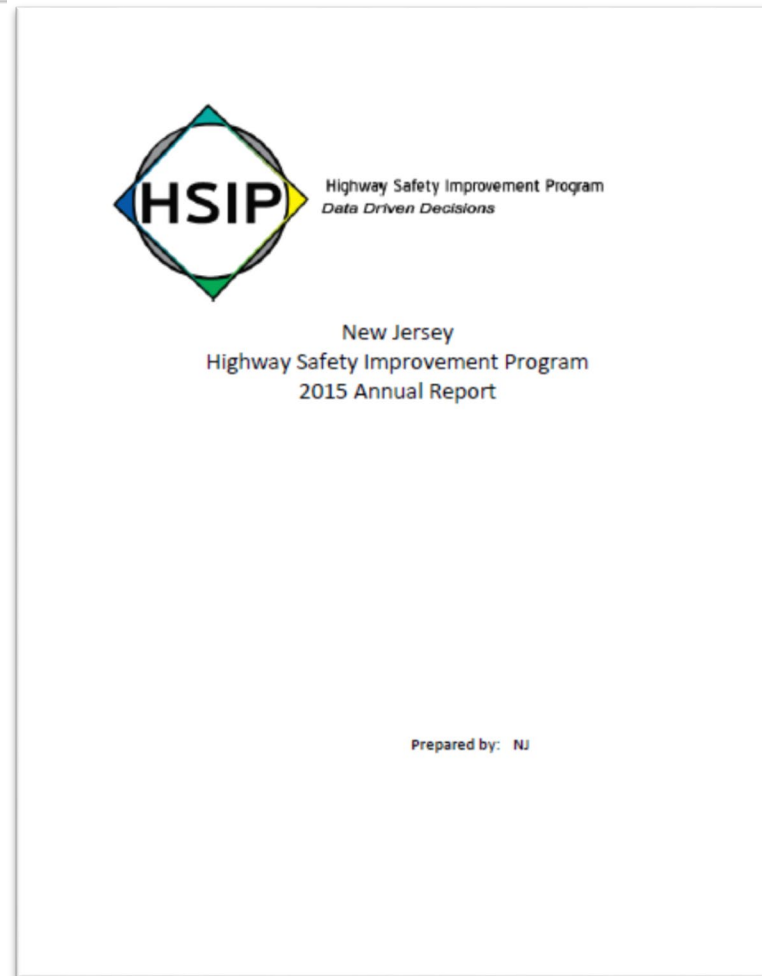
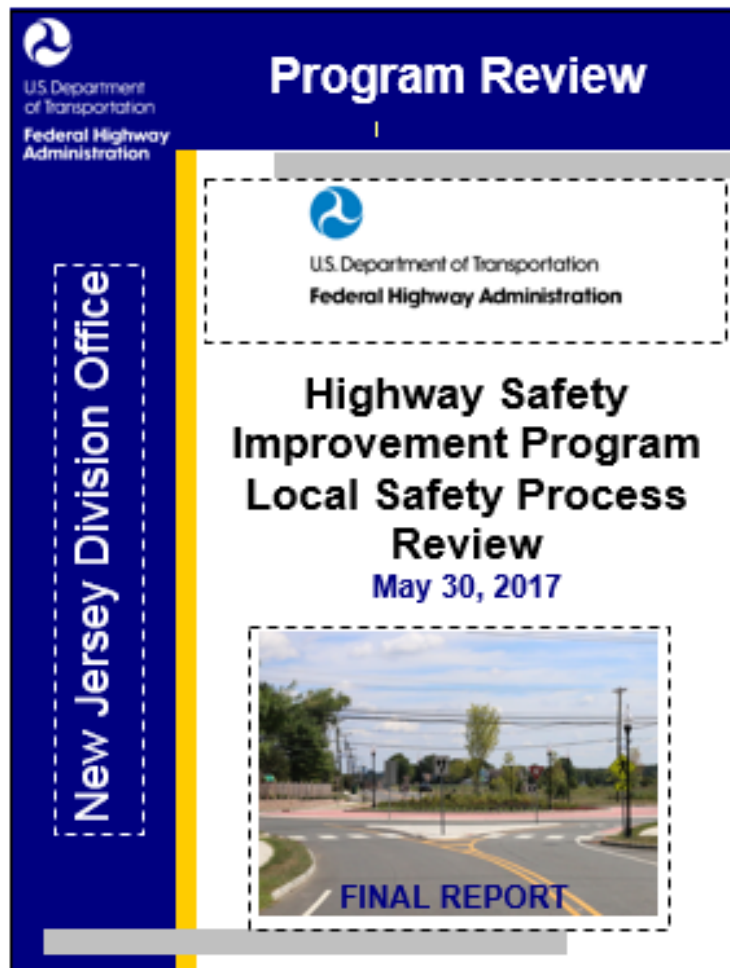
- ▶ Changes in Methodologies and Procedures
  - ▶ 2016 HSIP Program Manual
  - ▶ Using the HSM as a tool (predictive methods)
- ▶ Modifications to Program/Project Development
  - ▶ Full scope projects can now be developed enabling substantive assessments in lieu of low cost countermeasures within confines of existing ROW and without modifying existing geometry
  - ▶ Systemic Programs/Projects

# LSP Process

## HSIP Funding on Local Roads

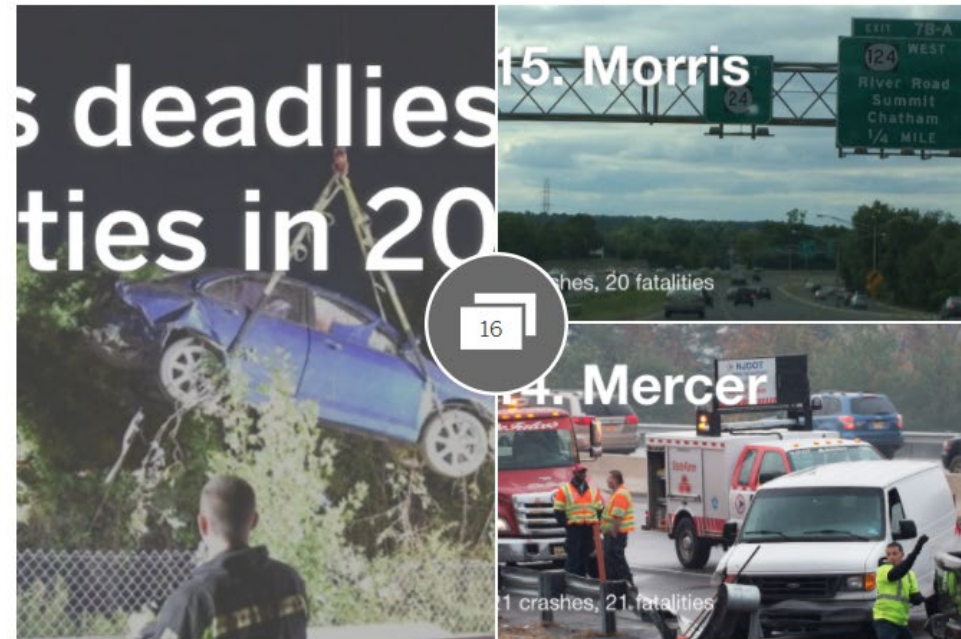


# Evaluation of Effectiveness Toward Achieving Safety Performance Targets



# How many of N.J.'s 270K accidents did your town have last year?

Updated Jan 23, 2017; Posted Jan 23, 2017



Gallery: N.J.'s deadliest counties in 2016

2     94 shares

# Questions

