Capital Investment Planning & Grant Administration Roadway Data and Crash Records Unit







Roadway Data and Crash Records Unit



Paul Thomas



Simon Nwachukwu



Grace Faughnan



Bryan Conti **Charles Mattern**

Penny Jones Timothy Larkin Jackie Sweat Dawn Williams Suzanne Ware Smita Shah Ellen Polk

Carmen Home Tamiko Miller



Baher Girgis



Virginia Powell

Donald Perry





Shahina Kazim Shahid Haji



Edwin King

HIGHWAY PERFORMANCE MONITORING SYSTEM (HPMS)



Simon Nwachukwu Project Engineer



HIGHWAY PERFORMANCE MONITORING SYSTEM (HPMS)



Functional Classification (FC)

- NJDOT is required by the Federal Highway Administration (FHWA) to update the urban area and functional classification of roadways following the decennial census.
- All New Jersey Routes are classified into Rural and Urban with each section further subdivided into seven categories:
- 1. Interstates
- 2. Other Freeways and Expressways
- 3. Other Principal Arterials
- 4. Minor Arterials
- 5. Major Collectors
- 6. Minor Collectors
- 7. Local Roads

Readway By Functional Classification (FC) To Interstate NJ & Other Principal Arterial Major Collector

Freeway/Express – Principal Arterial

Ø

59.229 65 MPH

CO 520 Minor Arterial



National Highway System (NHS)

- NJDOT is required by the Federal Highway Administration (FHWA) to update the NHS data (For example Pavement data) during the HPMS submittals every year.
- NHS was first Designated on November 28, 1995 and expanded on October 1, 2012
- The criteria for selecting NHS are:
- All routes on the Interstate System
- The Strategic Highway Corridor Network (STRAHNET) and its highway connectors to major military installations
- All high priority corridors identified in section 1105(c) of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 (For Examples, all Principal Arterials)
- Guideline for evaluating requests for modification to the NHS are stated under 23 U.S.C. 103(b)

HIGHWAY PERFORMANCE MONITORING SYSTEM (HPMS)

Background

- Developed in 1978 (mandated by Congress-23 U.S.C 502 (h))
- Used to determine road condition and performance (C & P) data
- Used to determine apportionment of Federal-aid funds
- Comprised of State-provided transportation system data
- Program objectives/business needs must be reassessed periodically

Scope of HPMS

- All Public Roads
 - Open to public travel
 - Owned by a Federal, State, or local entity
 - Includes Authority owned roads (e.g. toll roads)

HPMS Inventoried and Data Collection



County HPMS Sample Section Map



Field Staff Taking Sample Section Data



Sample Section Field Notes

Sample Section	Production -	Sample Section	Filter	(1958)	Sample Section	0001 001310	•	Delete	🕖 Reset	Submit
Main	County (Item 63): 21	Section Length: 1.6	6 Route ID (S	RI)	0000001	_	Milepost Be	gin-End	1.290	2.890
Office Home	Section Description: 5102	3 Penny St. Off Ramp to St	rawberry St./Rt. 1 Busine	ss Ramp			TMS Sta	ation ID:	5-5-092	
Data Manager	Item	Coded Value	ltem		Coded Val	ue Item			Coded Va	alue
Sample Section Edit	1. F System:	2 🖾	15. Toll Charged:			47. IRI:				97
Legend	2. Urban Code:	88462 C	16. Toll Type:			64. NHS:				1
	3. Facility Type:	4 2	17. Route Number:		🧼 U	S 1 65. STRA	HNET:			
- Value extends	4. Structure Type:		18. Route Signing:		چ 🔿	66. Truck				
Section.	5. Access Control:	🔅 1 🖾	19. Route Qualifier:		⇒ 1	C 67. Future	e Facility:			
- Predominant value	6. Ownership:	🔅 🚺 🖾	20. Alternative Route N	ame:	Trenton Fi	eev 68. Maint	enance Operati	ions:		1
multiple values.	7. Through Lanes:	4	21. AADT:		44	771 69. Capa	city:			
A - Field is required	8. HOV:		22. AADT Single Unit:		1	576				
to be homogenous	9. HOV Lanes:		24. AADT Combination:		1	386				
	Sample ID:	0001 001310	33. At Grade Other:			0 46. Perce	ent Pass Sight:			
	10. Peak Lanes:	2	34. Lane Width:		Í	12 48. PSR:			Í	
	11. Counter Peak Lanes:	2	35. Median Type:		4	49. Surfa	се Туре:			7
	12. Turn Lanes Right:	1	36. Median Width:			6 50. Ruttin	ig:			0.1
	13. Turn Lanes Left:	1	37. Shoulder Type:		2	51. Fault	ing:			0
	14. Speed Limit:	50	38. Shoulder Width Rigi	nt: •		10 52. Cracl	king Percent:			0
	23. Percent Peak Single:	0.3800	40 Peak Parking:	L		2 53. Cracl	king Length:			1440
	25. Percent Peak Combo:	0.2200	41. Widening Obstacle:		3	54 Year I	Last Improveme	ent:		2011
	26. K Factor:	11	42. Widening Potential:			9 55. Year	Last Construct	tion:		1996
	27. Dir Factor:	57	43. Curves A through F	:		56. Last	Overlay Thickn	ess:		2.0
Check In/Out	28. Future AADT:	46114	A: 1.400 C	0.200	E: 0.000	57. Thick	ness Rigid:			
Reports	29. Signal Type:	5 1	B: 0.000 D	: 0.000	F: 0.000	58. Thick	ness Flexible:			5.0
Export	30. Percent Green Time:		44. Terrain Type:			59. Base	Type:			2
System Validation	31. Number Signals:	0	45. Grades A through F	:	E. 0.000	60. Base	Thickness:			23
Import Tools	32. Stop Signs:	0	B: 0.900 D	0.000	F: 0.000	62. Soil T	ype:		(*)	

Annual FHWA Data Submittal

The States are required to submit 12 datasets to FHWA annually HPMS consists of roadway section-level (i.e. 68 data items) area-wide summary, and supplemental data The model's GIS framework allows data to be analyzed/managed geo-spattially

Name	What	Who
State Boundaries	Polygon shapes dataset	FHWA
County Boundaries	Polygon shapes dataset	FHWA
Climate Zone Boundaries	Polygon shapes dataset	FHWA*
Soil Type Boundaries	Polygon shapes dataset	FHWA*
Routes	LRS network dataset	State
Urban Area Boundaries	Polygon shapes dataset	State**
NAAQS Area Boundaries	Polygon shapes dataset	FHWA
Sections	Section dataset	State
Sample Panel identification	Geographic limits dataset	State
Statewide Summaries	Summary dataset	State
Vehicle Summaries	Travel activity dataset	State
Urban Area Summaries	Urban summary dataset	State
County Summaries	System length dataset	State
NAAQS Summaries	System length & travel dataset	State
Line References	Special networks dataset	State
Point References	Interchanges dataset	FHWA
Estimates	Statewide defaults dataset	State
Metadata	Metadata dataset	State

HPMS Reporting Requirements

- All Public Roads certified by the State Governor or Governor's Designee (Dave Kuhn) annually due by June 1st to FHWA Headquarters
- HPMS annual submittal due by June 15th
- Mileage must be consistent with Certified Public Road Mileage (i.e. total miles).
- Linear referencing system (LSR) data
- Roadway inventory/attribute data
- HPMS submittal must be transmitted to FHWA via webbased application

HPMS Reports - Mileage by Ownership

HPMS 8.0.1

Stage: Submit

Year: 2015

	State: 34 - New Jersey Date: 06/14/2016
All	Miles
1 - Interstate	431.540
2 - PA - Other Freeways and Expressways	488.460
3 - PA - Other	1,961.110
4 - Minor Arterial	3,940.970
5 - Major Collector	3,696.760
6 - Minor Collector	738.850
7 - Local	27,806.870
Total	39,064.560

Ownership Report

HPMS 8.0.1

State Highway Agency	Miles
1 - Interstate	323.470
2 - PA - Other Freeways and Expressways	198.010
3 - PA - Other	1,346.380
4 - Minor Arterial	438.630
5 - Major Collector	15.000
6 - Minor Collector	0.000
7 - Local	18.690
Total	2,340.180

County Highway Agency	Miles
1 - Interstate	0.000
2 - PA - Other Freeways and Expressways	0.000
3 - PA - Other	543.620
4 - Minor Arterial	2,727.260
5 - Major Collector	2,072.470
6 - Minor Collector	334.190
7 - Local	972.580
Total	6,650.120

Ownership Report

Stage: Submit

Year:

Date:

2015

State: 34 - New Jersey 06/14/2016

City or Municipal Highway Agency	Miles
1 - Interstate	0.000
2 - PA - Other Freeways and Expressways	0.000
3 - PA - Other	59.390
4 - Minor Arterial	773.600
5 - Major Collector	1,609.260
6 - Minor Collector	401.640
7 - Local	25,910.870
Total	28,754.760

HPMS Reports Cont. – Extent and travel on the NHS

HPMS 8.0.1 E

Extent and Travel on the NHS

Submit
2015
34 - New Jersey
06/14/2016

NH	S:	To	tal

F System	Miles	Lane Miles	Vehicle Miles
1 - Interstate	431.54	2,973.15	43,082,265.59
2 - PA - Other Freeways and Expressways	488.46	2,688.56	34,412,909.44
3 - PA - Other	1,960.88	6,303.43	46,767,386.30
4 - Minor Arterial	73.60	208.31	895,826.32
5 - Major Collector	15.15	31.84	95,342.17
6 - Minor Collector	0.21	0.42	479.85
7 - Local	0.36	0.72	1,525.08
Sub-Totals	2,970.20	12,206.43	125,255,734.75

NHS: 1 - Non Connector NHS			
F System	Miles	Lane Miles	Vehicle Miles
1 - Interstate	431.54	2,973.15	43,082,265.59
2 - PA - Other Freeways and Expressways	488.46	2,688.56	34,412,909.44
3 - PA - Other	1,941.99	6,252.64	46,386,290.78
4 - Minor Arterial	41.92	131.57	477,787.28
5 - Major Collector	5.26	10.52	28,916.15
6 - Minor Collector	0.00	0.00	0.00
7 - Local	0.12	0.24	1,104.12
Sub-Totals	2,909.29	12,056.68	124,389,273.36

Uses of HPMS Data

- Federal Uses
 - Federal Apportionment Formula
 - Provide C&P data to the congress and the public.
 - Highway Economic Requirements System (HERS)
 - Pavement Deterioration Models
- Non-Federal Uses
 - Statewide Planning Programs
 - Real Estate/Business Sector
 - Transportation Research

Estimated FY 2016 Apportionments Under The Fixing America's Surface Transportation (FAST) Act

1			U	U.S. DEPARTME	NT OF TRANSPO	RTATION		•		-
2										
2				FEDERAL HIG	HWAT ADMINIST	ATION				-
3										-
5	SUM	ARY OF ESTIMAT	TED EX 2016 APPO	RTIONMENTS UND		MERICA'S SUREA	CE TRANSPORTA	TION (EAST) ACT	r	
6	5011	LART OF LOTING	(before post an	nortionment setas	ides: before pena	Ities: before segu	estration)			-
7			(Delete peet up				conunon,			
8		National	Surface	Highway	Railway-					
9		Highway	Transportation	Safety	Highway			National		
10		Performance	Block Grant	Improvement	Crossings	CMAQ	Metropolitan	Freight	Apportioned	
11	State	Program	Program	Program ¹	Program	Program	Planning	Program	Total	
12		regram	<u></u>			<u></u>	<u></u>	<u></u>	<u></u>	
37	Mississippi	288.315.734	143.612.916	28,177,385	3,460,477	11,175,589	1,693,464	14,152,310	490.587.875	Ē
38	Missouri	562,174,933	280,107,769	56,082,029	5,607,330	23,479,971	5,176,323	27,646,548	960,274,903	
39	Montana	240,963,310	120,164,502	24,539,915	1,901,805	14,829,579	1,790,379	11,995,469	416,184,959	
40	Nebraska	169,638,303	84,600,285	14,949,684	3,665,302	10,248,103	1,650,549	8,438,960	293,191,186	
41	Nevada	199,908,721	100,207,991	20,811,661	1,125,000	32,443,244	3,269,120	10,566,287	368,332,024	
42	New Hampshire	93,744,154	46,876,078	9,161,864	1,125,000	10,309,073	1,574,311	4,805,235	167,595,715	
43	New Jersey	538,350,601	270,326,326	55,351,201	3,723,833	103,689,682	12,397,571	28,952,836	1,012,792,050	
44	New Mexico	216,882,649	108,108,919	22,185,636	1,613,631	11,368,844	1,602,915	10,736,322	372,498,916	
45	New York	897,352,887	450,919,385	92,217,324	6,252,246	182,483,421	24,869,709	48,554,600	1,702,649,572	
46	North Carolina	603,240,031	301,185,169	59,665,889	6,529,682	51,053,464	5,792,724	30,455,093	1,057,922,052	
47	North Dakota	144,482,130	72,102,133	12,080,179	3,774,334	10,479,532	1,672,029	7,240,957	251,831,294	
48	Ohio	753,801,609	377,202,327	73,971,867	8,745,336	95,385,605	11,536,224	39,020,269	1,359,663,237	1
49	Oklahoma	379,730,372	189,084,248	36,346,556	5,322,543	11,709,675	2,574,929	18,547,675	643,315,998	-
50	Oregon	291,863,356	145,612,671	29,087,277	2,939,877	19,325,359	3,604,875	14,570,938	507,004,353	1
51	Pennsylvania	931,501,130	465,767,004	95,608,422	6,608,351	104,095,897	12,917,282	47,798,464	1,664,296,550	4
52	Rhode Island	126,303,052	63,068,001	12,734,661	1,125,000	10,389,924	1,849,352	6,367,383	221,837,373	1
53	South Carolina	400,238,109	199,322,336	39,627,687	4,291,796	13,048,905	3,136,820	19,570,931	679,236,584	-
54	South Dakota	164,005,151	81,849,354	15,626,616	2,370,224	12,219,376	1,759,819	8,229,265	286,059,805	-
55	Tennessee	491,552,314	245,312,251	49,151,643	4,788,057	36,898,500	4,787,302	24,672,946	857,163,013	-
56	lexas	1,996,468,665	996,796,988	200,827,495	16,251,772	163,993,152	24,374,383	100,641,720	3,501,354,175	-
57	Vormont	115 606 627	67 790 022	11 560 907	1,500,401	11 200 051	2,027,656	5 909 019	205 969 292	⊢
50	Vermont	F94 210 665	201 002 264	F0 565 692	4 552 705	54 706 400	2,007,050	20,650,721	1 022 226 472	-
60	Washington	397 614 261	103 704 179	28 208 668	4,552,705	36 809 124	7,520,505	10 601 236	687 644 962	-
61	West Virginia	257 760 426	128 / 98 198	26 280 869	2 004 056	14 267 243	1,231,337	12 782 948	443 288 929	-
62	Wisconsin	441 049 920	219 977 204	42 636 738	5 761 163	27 291 366	4 553 034	21 960 555	763 229 980	-
63	Wyoming	149 458 812	74 571 250	42,030,730	1 125 000	10 379 950	1 574 430	7 476 318	259 861 381	
64	vy oning	143,430,012	14,511,250	13,213,021	1,125,000	10,515,550	1,514,430	1,410,310	233,001,301	\vdash
65	Apportioned Total	22 332 260 060	11 162 564 768	2 225 594 512	225 000 000	2 309 059 935	329 270 722	1 140 250 003	39 724 000 000	
66	Apportioned Total	22,332,200,000	11,102,304,700	2,223,334,312	223,000,000	2,303,033,333	323,210,122	1,140,230,003	33,124,000,000	1

Comparison of Actual FY 2015 Apportionments and Estimated FY 2016 -2020 Apportionments under the FAST Act

1				ILS DEPARTME	NT OF TRANSPORT	RTATION				
2										
2				FLUERAL HIG	IIWAT ADMINISTR	ATION				
4										
5	COMPARISO	OF ACTUAL EX 20				ANSPORTATION		2014 AS AMENDE		
6	F	TIMATED EY 2016	FY 2020 APPORT	ONMENTS LINDER	THE FIXING AME	RICA'S SURFACE	TRANSPORTATIO	ON (FAST) ACT	D, AND	
7			(before nost-ann	ortionment setas	ides: before penal	ties: before seque	stration)	in (i Abij Aci		
8			(belote poor upp		luce, belore pena	lice, belore beque	Jourdation			
9										
10		Actual	Est.	Est.	Est.	Est.	Est.	FY 2016 to 2020	FY 2016 to 2020	
11	State	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Total	Average	
12										
37	Mississippi	466,803,812	490,587,875	500,718,610	511,539,831	523,085,607	535,613,291	2,561,545,214	512,309,043	
38	Missouri	913,719,741	960,274,903	980,104,758	1,001,286,170	1,023,885,822	1,048,407,455	5,013,959,108	1,002,791,822	
39	Montana	396,007,464	416,184,959	424,779,247	433,959,302	443,754,023	454,381,736	2,173,059,267	434,611,853	
40	Nebraska	278,976,662	293,191,186	299,245,632	305,712,735	312,612,854	320,099,792	1,530,862,199	306,172,440	
41	Nevada	350,472,546	368,332,024	375,938,098	384,062,585	392,731,061	402,136,745	1,923,200,513	384,640,103	
42	New Hampshire	159,469,843	167,595,715	171,056,584	174,753,337	178,697,613	182,977,330	875,080,579	175,016,116	
43	New Jersey	963,682,664	1,012,792,050	1,033,706,218	1,056,045,847	1,079,881,265	1,105,743,762	5,288,169,142	1,057,633,828	
44	New Mexico	354,439,590	372,498,916	380,191,084	388,407,532	397,174,128	406,686,276	1,944,957,936	388,991,587	
45	New York	1,620,088,460	1,702,649,572	1,737,809,280	1,775,365,392	1,815,436,141	1,858,914,699	8,890,175,084	1,778,035,017	
46	North Carolina	1,006,630,450	1,057,922,052	1,079,768,287	1,103,103,510	1,128,001,186	1,155,016,278	5,523,811,313	1,104,762,263	
47	North Dakota	239,621,802	251,831,294	257,031,648	262,586,445	268,513,174	274,943,940	1,314,906,501	262,981,300	
48	Ohio	1,293,739,008	1,359,663,237	1,387,740,399	1,417,731,235	1,449,730,162	1,484,450,429	7,099,315,462	1,419,863,092	
49	Oklahoma	612,127,810	643,315,998	656,600,603	670,790,656	685,930,829	702,358,595	3,358,996,681	671,799,336	
50	Oregon	482,423,497	507,004,353	517,474,070	528,657,381	540,589,488	553,536,361	2,647,261,653	529,452,331	
51	Pennsylvania	1,583,603,275	1,664,296,550	1,698,664,445	1,735,374,776	1,774,543,112	1,817,042,511	8,689,921,394	1,737,984,279	
52	Rhode Island	211,081,927	221,837,373	226,418,345	231,311,545	236,532,377	242,197,215	1,158,296,855	231,659,371	
53	South Carolina	646,306,850	679,236,584	693,262,955	708,245,330	724,230,875	741,575,911	3,546,551,655	709,310,331	
54	South Dakota	272,190,802	286,059,805	291,966,983	298,276,779	305,009,059	312,313,885	1,493,626,511	298,725,302	
55	Tennessee	815,605,297	857,163,013	874,863,555	893,770,525	913,943,445	935,831,968	4,475,572,506	895,114,501	
56	Texas	3,331,596,800	3,501,354,175	3,573,657,617	3,650,889,094	3,733,291,741	3,822,702,306	18,281,894,933	3,656,378,987	
57	Utah	335,148,600	352,225,393	359,498,902	367,268,156	375,557,614	384,552,048	1,839,102,113	367,820,423	
58	Vermont	195,886,832	205,868,282	210,119,484	214,660,438	219,505,440	224,762,485	1,074,916,129	214,983,226	
59	Virginia	982,180,040	1,032,226,472	1,053,542,076	1,076,310,501	1,100,603,428	1,126,962,342	5,389,644,819	1,077,928,964	
60	Washington	654,304,963	687,644,962	/01,844,910	/1/,012,693	/33,196,062	/50,/55,744	3,590,454,371	/18,090,8/4	
61	West Virginia	421,797,542	443,288,929	452,442,922	462,220,829	472,653,435	483,973,279	2,314,579,394	462,915,879	
62	Wisconsin	/26,226,908	763,229,980	//8,990,803	795,825,845	813,788,109	833,277,970	3,985,112,707	/9/,022,541	
63	vvyoming	247,262,623	259,861,381	265,227,558	270,959,481	277,075,196	283,711,020	1,356,834,636	2/1,366,927	
64	Annestic sed Tet-1	27 700 000 000	20 704 000 000	40 544 205 000	44 400 500 075	40.055 400 000	42 200 704 244	007 444 000 000	44,400,004,040	
CO	Apportioned Total	31,190,000,000	39,724,000,000	40,544,305,000	41,420,520,075	42,355,403,696	43,309,794,311	207,414,023,082	41,402,004,010	

What is Next

- Moving Ahead for Progress in the 21st Century Act (MAP-21) provides a performance-based and multimodal program to enhance the U.S. transportation system
- HPMS will be used:
- Submitting Data requirements for Highway Safety Improvement Program(HSIP) - Model Inventory of Roadway Elements (MIRE) and Fundamental Data Elements (FDE)
- For MIRE –FDE, we will be reporting: Non-Local Paved Roads (37 elements) Local Paved Roads (9 elements) Unpaved Roads (5 elements)
- Submitting System Performance for proposed NPRM

Model Inventory Roadway Elements (MIRE) – the Cost estimates for Fundamental Data Elements (FDE) needs by July 2017

2	Data Warehouse and Maintenance							
з	MIRE Gap Analysis Estimated Cost							
4	April 29, 2014							
5	By: Kevin McElwain							
6								
7	Estimated Cost Summary							
0								
0				Easture Extraction Gool ink: Contarline				
9						GeoLink. Centerine		
			Office Processing	State Routes	County Routes	Other STP	Rural Minor	
10	Task	Office Processing	Cost	(Directional)	(Centerline)	(500, 600, Local STP)	Collector and Local	
11	Direction of Inventory	✓	\$15,000					
12	Access Control	~	\$10,000					
13	Surface Type							
14	AADT greater than 400	~	\$10,000		✓	~		
15	AADT less than 400						✓	
16	One Way / Two Way Roads							
17	AADT greater than 400	~	\$10,000					
18	AADT less than 400						✓	
19	Unique Junction Identifier	~	\$40,000					
20	Location Identifier Crossing Point 1	~	\$15,000					
21	Location Identifier Crossing Point 2	~	\$15,000					
22	Intersection/Junction Geometry	~	\$15,000					
23	Intersection/Junction Traffic Control			\checkmark	✓	~	✓	
24	Unique Approach Identifier	~	\$10,000					
25	Unique Interchange Identifier	~	\$15,000					
26	Interchange Type	✓	\$15,000					
27	Roadway Type at Beginning Ramp Terminal	~	\$10,000					
28	Location identifier at Beginning Ramp Terminal	~	\$10,000					
29	Roadway Type at End Ramp Terminal	✓	\$10,000					
30	Location identifier at End Ramp Terminal	✓	\$10,000					
31	Mileage		n/a	5,000	6,700	8,500	27,100	
32	Cost Per Mile		n/a	\$20	\$28	\$59	\$89	
33	MIRE Task Totals		\$210,000	\$100,000	\$190,000	\$500,000	\$2,400,000	

National Performance Rule Making (NPRM)-HPMS Report by 2018

Transportation Performance Management

Data Submittal Requirements for Metric Calculations

Measure	Data	Submit Data to	Submission Deadline	Extraction Date
Both	 Reference NPMRDS TMC Codes or HPMS Location Referencing 	HPMS	June 15*	August 15
	 NHS Reporting Segments 	HPMS	November 1	
Travel Time Reliability	 LOTTR (each reporting period) 80th percentile travel time 50th percentile travel time 	HPMS	June 15*	August 15
Peak Hour	 PHTTR Peak hour travel time Hour where peak travel time occurred 	HPMS	June 15*	August 15
Travel Time	 Desired peak period travel times (AM and PM) 	HPMS	November 1	
	 Adjusted urbanized area boundaries Urbanized area population 	HPMS	First Baseline Report	

*Data would be submitted each year for the previous calendar year. For example, on June 15, 2019, data would be submitted for January 2018 – December 2018.

Crash Records Section



Crash Records Section

- The Crash Records Unit is responsible for annually collecting over 300,000 crash reports (NJTR-1) from all law enforcement agencies across the state in a database
- Crash Records are used internally in NJDOT to identify causes of crashes, determine areas of focus, and prioritize locations of high crash frequency. Crash Data is one of the required data collection element in any project development
- Crash records are also used by local governments, NJ Department of Law and Public Safety, National Highway Traffic Safety Administration and Federal Highway Administration
- Crash Records database is one of the federal requirement for utilizing approximately \$57M annually in federal safety aid
- > The Crash Records program is budgeted annually for approximately \$3.5M.

Crash Reporting Process

- Receive NJTR-1 from Police (paper, digital/FTP & electronic)
- Send Paper NJTR-1 to vendor for scanning and key input
- Send FTP NJTR-1 to vendor for Key input
- Receive Paper & FTP NJTR-1 from vendor and load them to the raw database.
- Verify Paper, digital/FTP & Electronic NJTR-1 using ARD application



ARD (Accident Records Database) Application

- ARD is an application that has been developed by OIT that is connected to the crash records database
- The main function is to be used by our Crash Records staff to verify crashes
- Other functions are load crash data, create summary and detailed crash reports
- Used mainly by Crash Records, Safety Programs & Traffic Engineering



Crash Records Webpage

- According with NJDOT Policy, Procedure #906, Crash Records information is for official use only and is restricted to units within the Department, other State Agencies, Counties and Municipalities
- Internally, Crash Records information can be requested by completing the "Crash Data/Analysis Request" Form
- > The only Crash Records information available to the public is through our NJDOT website
- Information on the Crash Records page is very useful to universities and researchers
- It provides statistics information grouped by:
 - Road System (State, County & Municipal)
 - Severity type (Injury & Fatal)
 - Location (at signalized or un signalized intersection & between intersections)
 - Cell phone usage
 - Crash Rate by (year, cross section geometry & State/Interstate routes)
- > It also contains raw data tables (Accident, Driver, Vehicle & Occupant)

Crash Records Webpage(continue) Link: http://www.state.nj.us/transportation/refdata/accident

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Winter Readiness

Application for Red Light Running Automated

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OPRA | Open Public Records Act

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Crash Records	Crash Records					
Crash Detail Summary	Coursels Descend Communities					
2001 - Current Raw Data	Crash Record Summaries Please read through the note					
Accident Table						
Driver Table	 regarding the information on this site. Please be advised that the 2001-2006 is now using a new format and you must download the new NJTR-1 Form along with the new 					
/ehicle Table						
Pedestrian Table						
Occupant Table	tables in order to format your data correctly.					
1997 - 2000 Raw Data	Crash Records & Statistics	Years				
Raw Data Overview	Total Crash Records by County Statewide	2000 to 2014				
Key To Raw Data	Total clash Records by County Statewide	(pdf 204k)				
C rash Code List New NJTR-1 Form (pdf 875k)	Total Injury Crashes by County Statewide	(pdf 201k)				
VJTR-1 Form 2001-2005 (pdf 147k)	Total Fatal Crashes by County Statewide	(pdf 240k)				
1997 - 2000	Crash Rates / By State / Interstate Routes	2003 to 2014 (pdf 307k)				
Police Resources	Cell Phone Statistics	2002 to 2014				
County and Municipal Codes (xls 67k)	New Jersey Crash Statistics	(pdf 726k) <u>2000 to 2014</u> (pdf 108k)				
Hospital Code (pdf 22k)	(excludes Private & US Government Property and State/County Parks and Institutions)					
Insurance Resources MVC Insurance Code List	Statewide Crash Rates by Cross Section Geometry	2006 to 2014				
NJ Insurance Fraud Info.		(put took)				
Insurance Company Phone Directory	Crash Rate Reports By Year					
Additional Statistics	You will need Adobe Acrobat Reader	9.5 (4)				
Contact Us	to view the PDF files which is available at our State Adobe Access Page.	Select Year 🗸				
	Crash Description Types & Locations	Years				
	The information listed below pertains to the development of the Crash Summary Reports which provide statewide accident percentages for various types of accidents:					
	Reports listed below are in PDF file format. (All file sizes are approximately 6-10k)					

What is next?

Electronic Data Transfer (EDT) System

- Web-based hosted solution to update the current crash records system.
- The current system relies on hard copy of NJTR-1 forms submitted by all law enforcement agencies across the state that are scanned and transferred to central database.
- The new EDT system will be designed considering best practices in security, data privacy and database management.
- It will phase out the paper version of the NJTR-1 and portable electronic devices will be used to fill and submit the NJTR-1 in electronic format



Electronic Data Transfer (EDT) System (Continue)

- It will capture the geographical location of a crash with minimal user input
- It will be available to any database user within 24 hours via the website
- > The project will consist of four phases:
 - 1. Design and Development
 - 2. Technical Components
 - 3. Testing, Deployment and Training
 - 4. System Management
- The project has been advertised for bidding on May of 2016
- ➤ The project estimated cost is \$5M



Straight Line Diagram & VideoLog Section



Straight Line Diagram & VideoLog Section

The oldest Straight Line Diagrams that we have on record is from 1968



Straight Line Diagram & VideoLog Section Up through 1990 the SLD was hand drawn Below is from 1968



Straight Line Diagram & VideoLog Section

In 1996 the SLD information was entered into a database and the production of the SLD was automated



What is next?

- New roadway images for State highways in 2017
- Collect LIDAR data along with the images
- Build applications for use with mobile phones
- Move the SLD database to cloud storage

Data Collection Van



Straight Line Diagram & VideoLog Section

This year the Automated Straight Line Diagrams and VideoLog were developed into applications for use on the web

This means that the Automated SLD and VideoLog can now be used by our business partners and customers

http://www13.state.nj.us/sldweb/sldviewer.aspx

http://www13.state.nj.us/sldweb/videolog.aspx

Straight Line Diagram & VideoLog Section Web Version of the SLD



Straight Line Diagram & VideoLog Section Web Version of the VideoLog



Questions and Answers





