



NORTH CAROLINA

Department of Transportation



North Carolina Safety Performance Measures

1/2/18

Overview

- Background
- State Safety Performance Measures
- MPO Safety Performance Measures
- Resources
- Questions

Background

Background

- MAP-21 / FAST Act Rulemaking
 - Requires State DOTs and MPOs to set targets for 5 safety performance metrics
 - Final Rules published in the Federal Register March 2016; effective April 2016

HSIP Safety Targets	
1	Number of fatalities
2	Rate of fatalities
3	Number of serious injuries
4	Rate of serious injuries
5	Number of non-motorized fatalities and non-motorized serious injuries

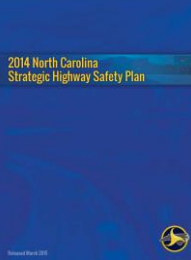
- Targets:
 - Are based on 5 year rolling averages
 - Are for calendar years
 - Are established annually
 - Must be identical to NHTSA Highway Safety Plan targets (Only applies to State level)

Background

- Target reporting dates:
 - State: August 31st with annual HSIP report
 - MPOs: February 27th
- How are targets set?
 - Up to each State and MPO
 - MPO can adopt State methodology, or come up with their own
- Assessment of Significant Progress
 - FHWA will determine whether a State DOT has met or made significant progress toward meeting HSIP targets
 - FHWA will not directly assess MPO progress towards meeting HSIP targets

State Safety Performance Measures

State Safety Performance Measures



- How were State targets set?
 - North Carolina State Strategic Highway Safety Plan (<http://ncshsp.org/>)
 - Developed through collaborative efforts of diverse safety stakeholders
 - State, Regional, Local
 - Public and private partners
 - Education, enforcement, engineering, emergency services
 - Presents a collaborative approach for reducing fatalities and serious injuries on NC's roadways
 - Adopted goal of reducing fatalities and serious injuries by half by the year 2030
 - Used this as the basis for State level target setting

State Safety Performance Measures

- Goal: Reduce fatalities and serious injuries by 2030
- Target: Where do we need to be in 2018 (current target setting year) to reach this goal by 2030?
 - 5 year rolling average of fatalities in 2013 = 1,290
 - To reduce fatalities by 50% in 2030 = 645
 - 5 year rolling average of fatalities in 2016 = 1,340.6

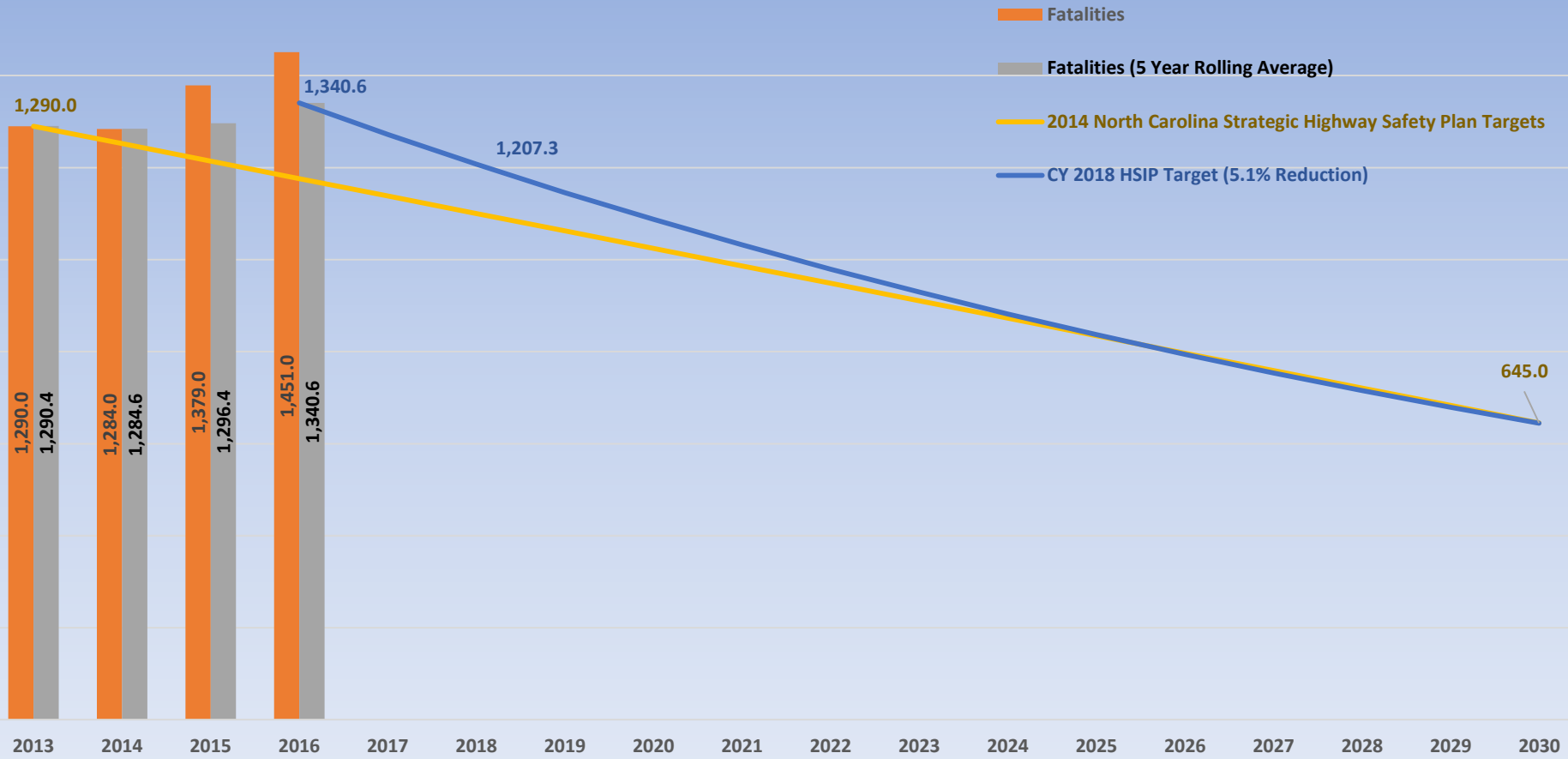
$$\text{Crash}_{\text{Future}} = \text{Crash}_{\text{Present}} * (1 + i)^n$$

Baseline 2012-2016	$1340.6 \times (1 + -0.0510)^0$	=	1340.6
2017	$1340.6 \times (1 + -0.0510)^1$	=	1272.2
2018 Target	$1340.6 \times (1 + -0.0510)^2$	=	1207.3

- 2018 fatality target: 1207.3

State Safety Performance Measures

Fatalities by Year and 5 Year Fatality Rolling Averages



State Safety Performance Measures

- 2018 State HSIP Safety Measures

Safety Performance Measures

Year	Fatalities	Fatality Rate	Serious Injures	Serious Injury Rate	Non-motorized Fatalities and Serious Injuries
2008	1,428	1.407	2,773	2.733	428
2009	1,313	1.280	2,480	2.417	358
2010	1,320	1.289	2,281	2.228	399
2011	1,230	1.186	2,368	2.283	405
2012	1,299	1.243	2,279	2.182	472
2013	1,290	1.227	2,117	2.013	406
2014	1,284	1.188	2,194	2.031	411
2015	1,379	1.233	2,422	2.165	437
2016	1,451	1.246	2,987	2.565	468

- 2018 State HSIP Safety Targets

Target Setting Crash Data

Year	Fatalities (5 Year Average)	Fatality Rate (5 Year Average)	Serious Injures (5 Year Average)	Serious Injury Rate (5 Year Average)	Non-motorized Fatalities and Serious Injuries (5 Year Average)
2008 - 2012	1,318	1.281	2,436	2.369	412
2009 - 2013	1,290	1.245	2,305	2.225	408
2010 - 2014	1,285	1.227	2,248	2.147	419
2011 - 2015	1,296	1.215	2,276	2.135	426
2012 - 2016	1,341	1.228	2,400	2.191	439
2018 Target*	1,207.3	1.114	2,161.2	1.988	393.5

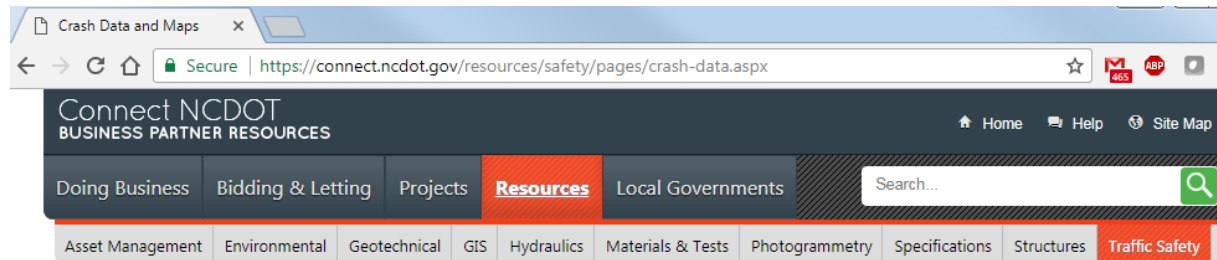
Resources

Resources

- Metropolitan Planning Organization Safety Performance Measures Fact Sheet
 - https://safety.fhwa.dot.gov/hsip/spm/docs/mpo_factsheet.pdf
- FHWA Safety Target Setting Resources
 - https://safety.fhwa.dot.gov/hsip/spm/target-setting_resources.cfm
- North Carolina Strategic Highway Safety Plan
 - <http://ncshsp.org/>

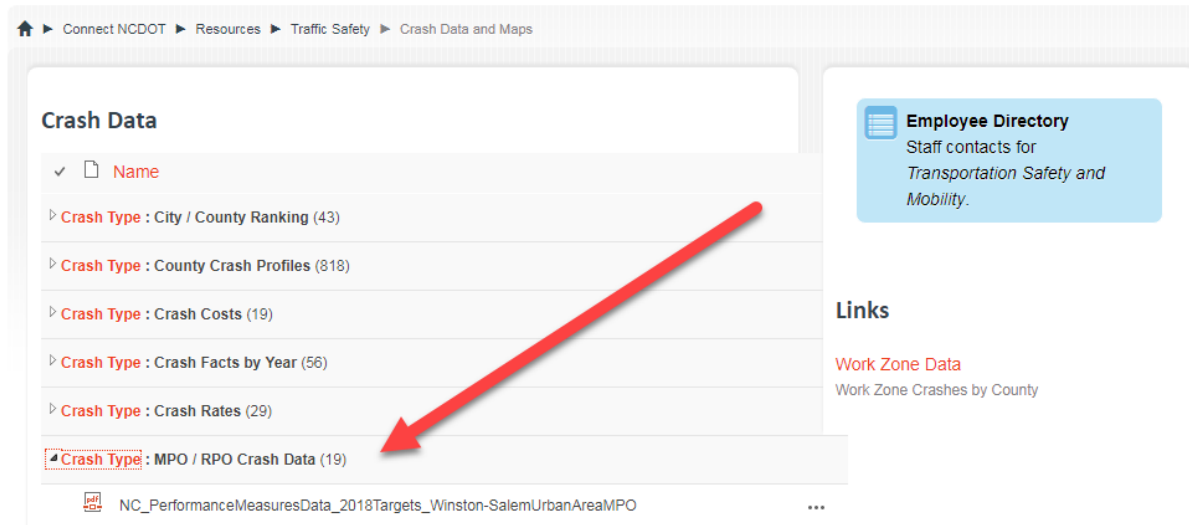
Resources

- MPO / RPO Crash Data
 - <https://connect.ncdot.gov/resources/safety/Pages/Crash-Data.aspx>



Crash Data and Maps

Crash data, organized by type, ranking, overall cost, and maps and other resources for analysis.



Questions / Discussion



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