

Safety in Transportation Planning



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New Visions 2040
Operations and Safety Advisory Group
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Fatality Rates: New York , U.S. and Best State

| Year | | Fatalities | Total Vehicle Miles Traveled (Millions) | Fatalities Per 100 Million Vehicle Miles Traveled | Total Population | Fatalities Per 100,000 Population |
|------|-------------|------------|---|---|------------------|-----------------------------------|
| 2008 | New York | 1,238 | 134,085 | 0.92 | 19,212,436 | 6.44 |
| | US | 37,423 | 2,976,528 | 1.26 | 304,093,966 | 12.31 |
| | Best State* | | | 0.67 | | 5.63 |
| 2009 | New York | 1,158 | 133,491 | 0.87 | 19,307,066 | 6.00 |
| | US | 33,883 | 2,956,764 | 1.15 | 306,771,529 | 11.05 |
| | Best State* | | | 0.62 | | 4.90 |
| 2010 | New York | 1,201 | 131,252 | 0.92 | 19,399,242 | 6.19 |
| | US | 32,999 | 2,967,266 | 1.11 | 309,326,225 | 10.67 |
| | Best State* | | | 0.64 | | 3.97 |
| 2011 | New York | 1,171 | 127,726 | 0.92 | 19,501,616 | 6.00 |
| | US | 32,479 | 2,946,131 | 1.10 | 311,587,816 | 10.42 |
| | Best State* | | | 0.65 | | 4.36 |
| 2012 | New York | 1,168 | | | 19,570,261 | 5.97 |
| | US | 33,561 | | | 313,914,040 | 10.69 |
| | Best State* | | | | | 2.37 |

*State (or States) With Lowest Rates: Lowest VMT and Population Rates Could Be in Different States

2012 National VMT is a Preliminary Estimate and Subject to Change

2012 State Vehicle Miles Traveled (VMT) Data is Not Yet Available

Source: NHTSA, NYS Traffic Safety Facts 2008-2012

New York Fatalities by Person Type

| Person Type | | 2008 | | 2009 | | 2010 | | 2011 | | 2012 | |
|---------------|------------------------------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|
| | | Number | Percent* | Number | Percent* | Number | Percent* | Number | Percent* | Number | Percent* |
| Occupants | Passenger Car | 498 | 40 | 434 | 37 | 441 | 37 | 400 | 34 | 400 | 34 |
| | Light Truck - Pickup | 53 | 4 | 46 | 4 | 55 | 5 | 54 | 5 | 67 | 6 |
| | Light Truck - Utility | 82 | 7 | 107 | 9 | 97 | 8 | 104 | 9 | 106 | 9 |
| | Light Truck - Van | 51 | 4 | 52 | 4 | 40 | 3 | 46 | 4 | 49 | 4 |
| | Large Truck | 7 | 1 | 11 | 1 | 15 | 1 | 7 | 1 | 10 | 1 |
| | Other/Unknown Occupants | 19 | 2 | 13 | 1 | 15 | 1 | 20 | 2 | 15 | 1 |
| | <i>Total Occupants</i> | 710 | 57 | 664 | 57 | 668 | 56 | 649 | 55 | 648 | 55 |
| | Bus | 0 | 0 | 1 | 0 | 5 | 0 | 18 | 2 | 0 | 0 |
| | Light Truck - Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Motorcyclists | <i>Total Motorcyclists</i> | 184 | 15 | 155 | 13 | 184 | 15 | 170 | 15 | 170 | 15 |
| Nonoccupants | Pedestrian | 297 | 24 | 308 | 27 | 303 | 25 | 287 | 25 | 297 | 25 |
| | Bicyclist and Other Cyclist | 42 | 3 | 29 | 3 | 36 | 3 | 57 | 5 | 45 | 4 |
| | Other/Unknown Nonoccupants | 5 | 0 | 2 | 0 | 10 | 1 | 8 | 1 | 8 | 1 |
| | <i>♦♦ Total Nonoccupants</i> | 344 | 28 | 339 | 29 | 349 | 29 | 352 | 30 | 350 | 30 |
| Total | <i>Total</i> | 1,238 | 100 | 1,158 | 100 | 1,201 | 100 | 1,171 | 100 | 1,168 | 100 |

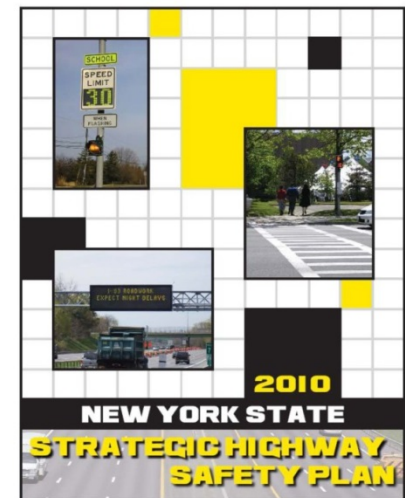
Source: NHTSA, NYS Traffic Safety Facts 2008-2012

Safety as a National Priority

- SAFETEA-LU (2005)
 - New Planning Factor
 - Increase the safety of the transportation system for motorized and non-motorized users.
 - Highway Safety Improvement Program (HSIP)
 - Reduce fatalities and injuries on **all public roads**
 - Dedicated funding (Safe Routes to School)
 - Focus on a state's most critical safety needs (strategic)
 - New data driven reporting requirements
 - Strategic Highway Safety Plan
 - HSIP Annual Report
 - 5% report
 - High Risk Rural Road report
 - Rail Highway Crossing Annual Report

Strategic Highway Safety Plan

- Statewide coordinated safety plan
 - Strategies
 - Performance measures
- 7 Emphasis Areas
 - Driver Behavior
 - Pedestrians
 - Large Trucks
 - Motorcycles
 - Highways
 - Emergency Medical Services
 - Traffic Safety Information Services



New York State Department of Transportation

David A. Paterson, Governor

Stanley Gee, Acting Commissioner

MPO Role

- Planning Process for all public roads should be consistent with:
 - Strategic Highway Safety Plan (SHSP)
 - Transit safety/security plans and programs
- Safety element consistent with the SHSP in long range plan
- Develop strategies to incorporate safety into:
 - MPO planning process
 - TIP development

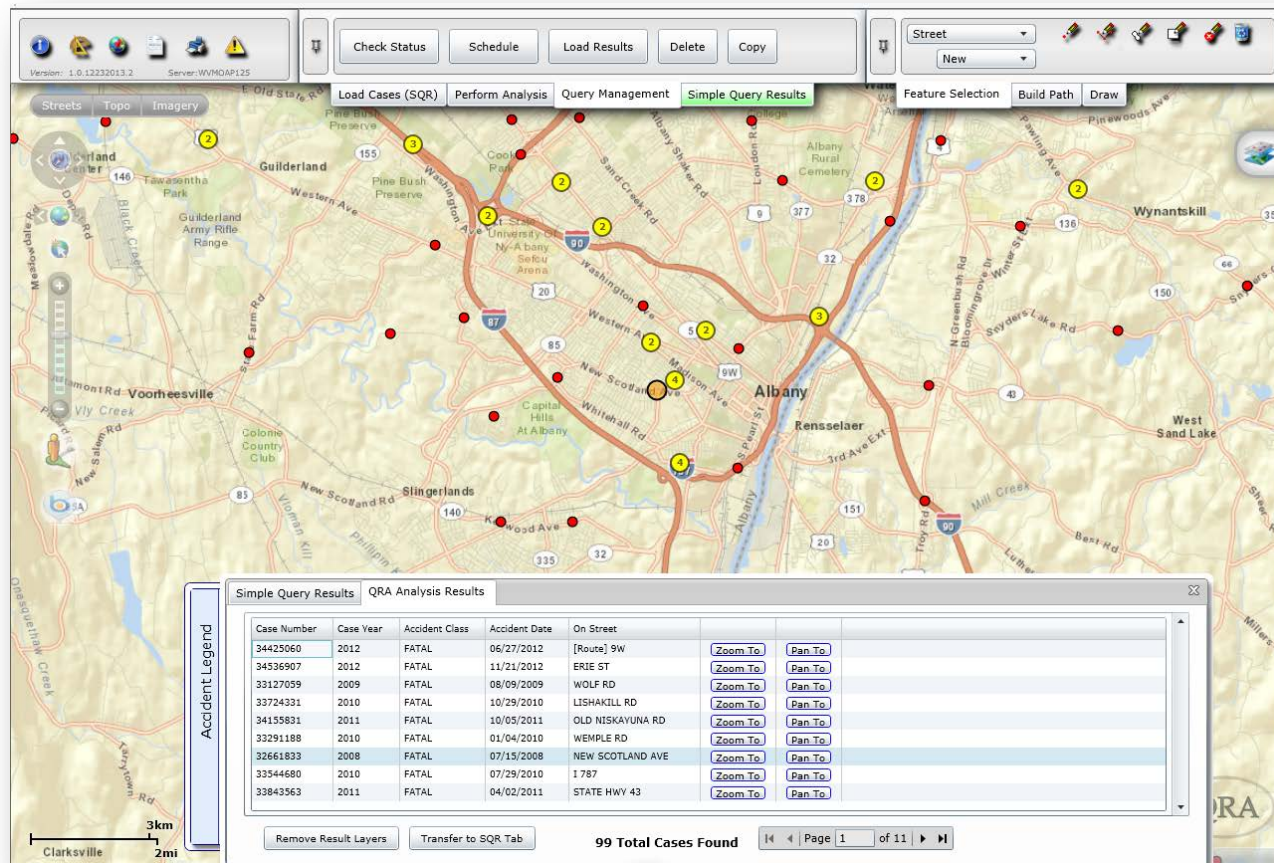
Safety Working Group (SWG)

- NYSAMPO: Coalition of the 13 MPOs
 - Federal, state, regional partners
 - www.nysmpos.org
- SWG created to:
 - Advance safety planning in New York State
 - Improve traffic safety
 - All users on all public roads



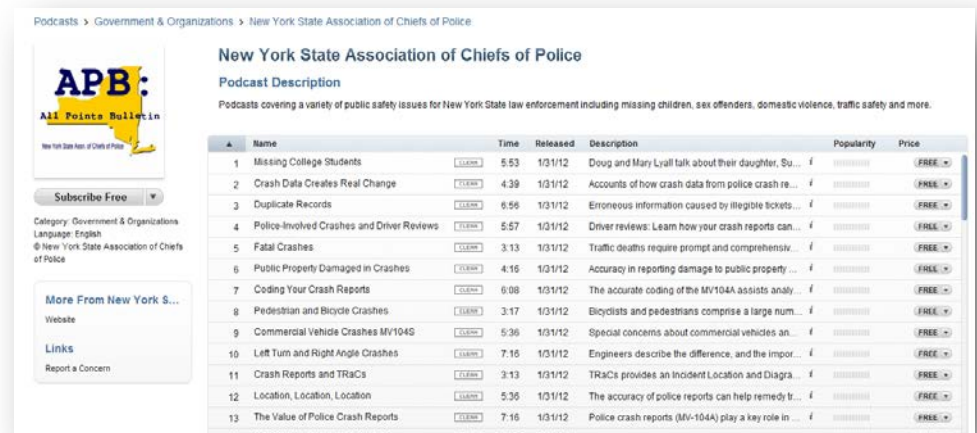
Crash Data

- Accident Location Information System
- Traffic Records Coordinating Council



Safety Partner Collaboration

- Membership in NYSATSB
 - Chair Engineering Committee
- NYSDOT
 - Crash data/analysis
 - Strategic Highway Safety Plan
- GTSC/NYSP
 - TraCS
 - Crash Data Quality Podcast Program



www.nychiefs.org – Click on Podcasts

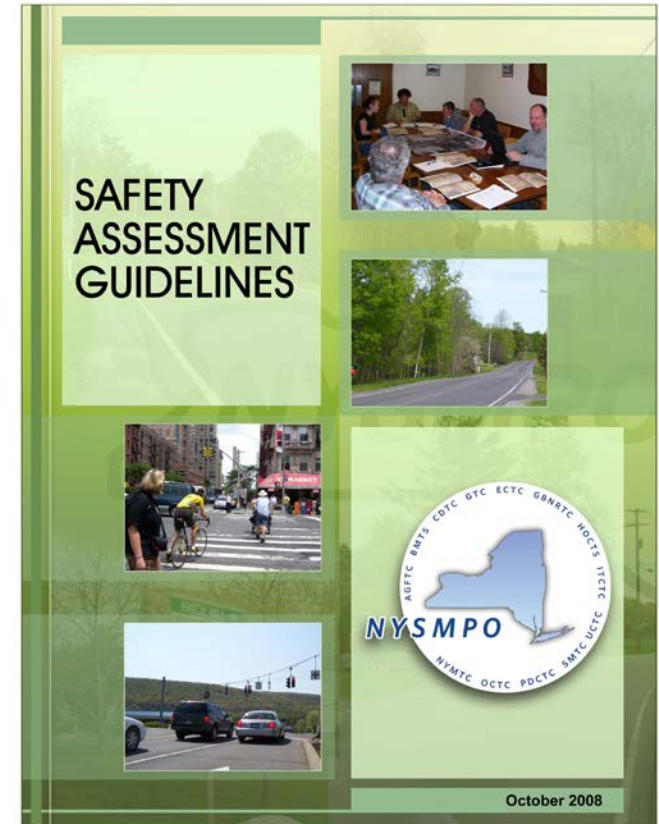
Education

- Training
- Safety related fact sheets
 - Pedestrian signal timing
 - Designing intersections for all users
 - Complete streets
 - NYS Traffic Safety Program



Tool Development

- Safety Assessment Process
 - SPR funded
 - 60% of NY's crashes occur on locally controlled roadways
 - Need for a low cost, easy to implement tool
 - Tailor the RSA to local needs in NYS
 - Allows for statewide uniformity
 - Potential for wide use
 - Comprehensive guidance
 - “how to”



New Visions 2035 Safety Principle

Improve the safety of the regional transportation system by creating a traveling environment that is consistent with the community context and provides a reasonable range of risk for all users of the system.

Essentially, complete streets

CDTC Safety Initiatives

- Linkage Program
 - Land use/transportation planning
 - Safety a key element
 - Complete Streets
 - 76 plans funded to date
- Safety related concepts
 - Engineering
 - Education
 - Enforcement

The Community and Transportation Linkage Planning Program



A land use/transportation planning assistance program offered by the Capital District Transportation Committee

January 2014



Bike/Ped Safety

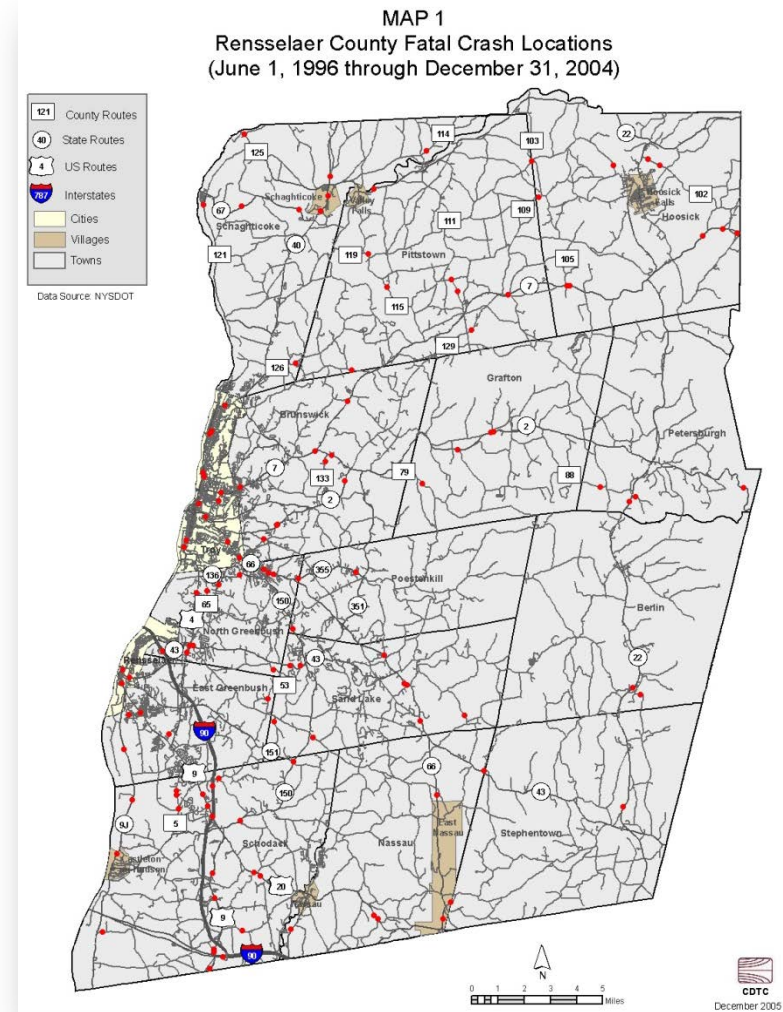
- Capital Coexist
 - www.capitalcoexist.org
 - Bicycling (planned to include Pedestrian)
- Albany County Traffic Safety Awareness
- Law Enforcement Training for Pedestrian and Bicycle Safety

Brochures → Training Course



Crash Data Resource

- Static GIS crash database
- Rensselaer County Pilot
- Assistance with HSIP applications
- Provision of crash data to local municipalities on request
- Promotion of Safety Assessment Process as a tool



Recent NYSDOT Initiatives

- NY 7 and NY 5 pedestrian safety studies
- Complete streets website
- NYSDOT Engineering Instructions (EIs) & Traffic Safety & Mobility Instructions (TSMIs)
 - EI 13-021 – Requirements and guidance for pavement marking operations
 - CARDS, travel lane and shoulder width adjustments
 - EI 13-018 – Raised Crosswalks
 - TSMI 13-07 – Share Lane Marking (SLM) Policy

HSIP

- Coordination with NYSDOT
 - Statewide solicitation
 - Main Office
 - Regional allocation of funds
 - Region 1 Coordination
 - Site specific vs. systemic
- Challenges with HSIP implementation
 - Project identification
 - Need to update HSIP procedures in NYS?

Consideration of Safety in TIP

- Safety benefit calculation
 - All project types
 - Supplemented with qualitative information
 - Merge with HSIP (assist with applications)
- Safety set-aside projects
 - Intersection safety
 - ITS
 - Bicycle/Pedestrian network
 - Grade crossing safety

FIGURE 1
BLANK PROJECT FACT SHEET

CANDIDATE #, CANDIDATE NAME

| | |
|--|---------------------------|
| LOCATION: | BENEFIT/COST RATIO |
| DESCRIPTION: | TOTAL BENEFITS (k\$/yr) |
| PROJECT TYPE: | SAFETY |
| COST: \$ M (total all phases) LIFE: yr | TRAVEL TIME |
| SPONSOR: | ENERGY/USER |
| CURRENT CONDITION: | LIFE CYCLE VALUE |
| FUNCTIONAL CLASS: | OTHER |
| AADT: | |
| PRIORITY NETWORK(S): | ANNUALIZED COST (k\$/yr) |

CONGESTION RELIEF:
AIR QUALITY BENEFIT:
REGIONAL SYSTEM LINKAGE:

LAND USE COMPATIBILITY (PLANNED OR EXISTING):
COMMUNITY OR ECONOMIC DEVELOPMENT:
ENVIRONMENTAL ISSUES:
BUSINESS OR HOUSING DISLOCATIONS:

BICYCLING:
WALKING:
GOODS MOVEMENT:
TRANSIT USE:
INTERMODAL TRANSFERS:

SCREENING ISSUES:
OTHER CONSIDERATIONS:

MAP-21

- Requires regular updates of the SHSP
- Increases safety funding
- Consolidates funding programs
 - Railway-highway crossings
 - Transportation Alternatives (TA) program
- Requires state safety data system
 - perform problem identification and countermeasure analysis on all public roads
 - advance data collection, analysis, and integration capabilities
 - determine priorities for the correction of identified safety problems

MAP-21 2014 Rulemakings

- Safety Performance Measures
- Highway Safety Improvement Program
- Highway Safety Program Grants
- Metropolitan and Statewide Planning

Where do we go from here?

- Define role of MPO while state builds required databases?
- Equity between the state and locally owned transportation systems?
- Identify links between crash data and regional safety strategies?
- Proactive vs. Reactive approaches?
- Project identification?
- Coordination with municipalities?
- How deep do we go?

MPO Safety Committees

- DVRPC – Regional Safety Task Force
 - Goals, objectives and measures
- NYMTC – Safety Advisory Working Group



The screenshot shows the DVRPC website with a navigation bar at the top. The main content area is titled "Regional Safety Task Force (RSTF)". It includes a list of resources, publications, and agendas. The "Resources" section lists items like "Products and Services", "Long-Range Plan", "Environment", "Funding Opportunities", "Transportation Improvement Program (TIP)", "Transportation", "Operations and ITS", "Land Use", "Economic Development", "Community Resources", and "Other Links". The "Publications" section lists "Planning at the Edge: An Update" and "Recent" publications. The "Agendas" section lists dates from 2012 to 2005. The "Minutes / Highlights" section lists dates from 2012 to 2008.



The screenshot shows the "Safety Advisory Working Group" website. It features a header with the group's name and a main content area. The "Safety Advisory Working Group" section describes the group's purpose and lists its members. The "NYMTC Public Info Session" section provides details about a session held on June 07, 2012. The "Safety & Security Element Update for the Regional Transportation Plan" section lists updates and provides links to "Notice", "Current Safety & Security Element (Chapter 5)", and "Safety Statistics". The "Additional safety data can be accessed through the following link:" section provides a URL. The "Questions:" section provides an email address.

Regional Multimodal Safety Plans

- MORPC – Regional Safety Report
 - www.morpc.org
- DVRPC – Safety Action Plan
 - www.dvrpc.org

Goals/Emphasis Areas

Crash statistics

Safety initiatives

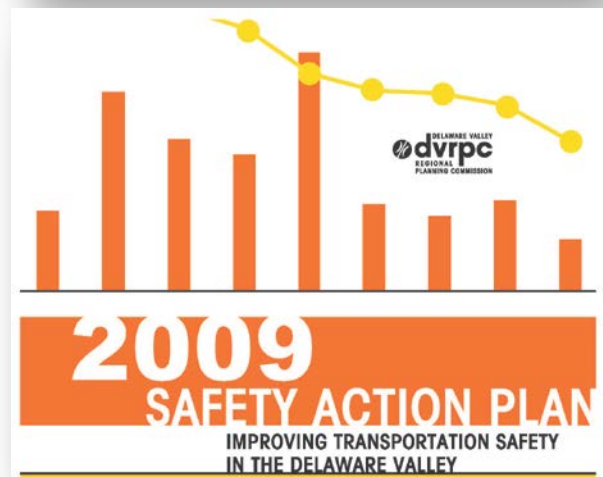


September 2007

Prepared by



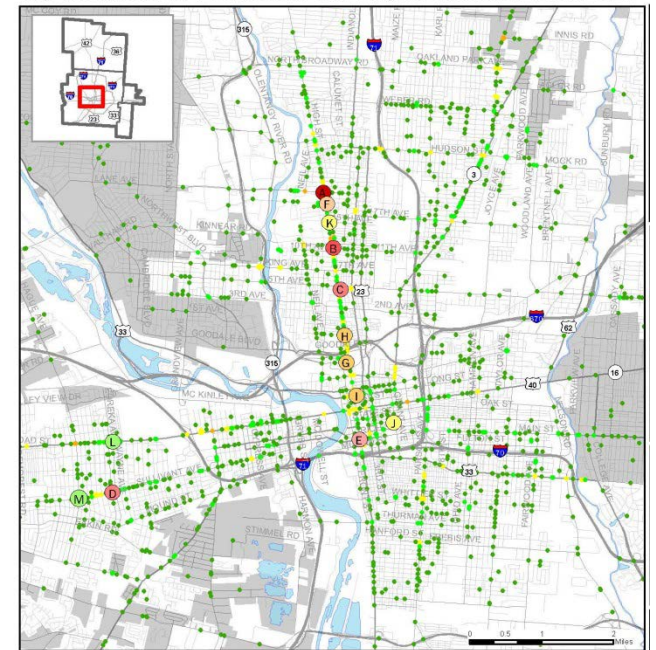
The Mid-Ohio Regional Planning Commission
285 E. Main St.
Columbus, OH 43215



MORPC Regional Safety Report

- National, state and regional data
- Looked at crash data
 - Overall
 - Fatal crashes/fatalities
 - Serious crash types
 - Special vehicles/roadway users
 - Incident/congestion related
- Crash maps and lists

Top Locations for Pedestrian and Bicycle Crashes 2006-2010



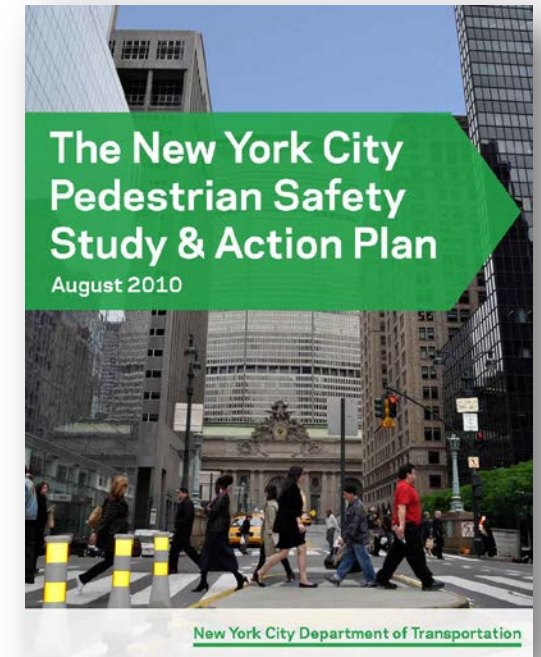
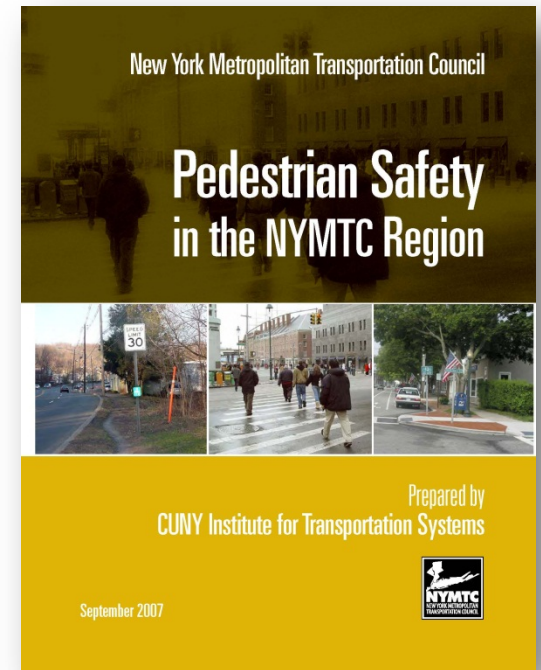
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.
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Pedestrian Safety

- New York City
 - NYMTC Pedestrian Safety Plan
 - Identifies pedestrian safety issues and countermeasures
 - NYCDOT Pedestrian Safety Plan
 - Where, when and how (data)
 - Action plan (3 E's and city policy)

www.nymtc.org

www.nyc.gov



Regional Indicators

- DVRPC: 12 transportation
 - Safety
 - Fatalities/100 million VMT
 - Fatalities/100,000 people

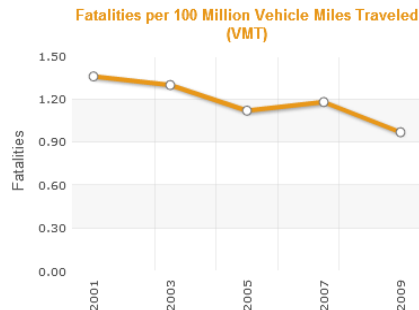
HAVE VEHICLE FATALITIES DECLINED?



Indicators: Fatalities per hundred million vehicle miles traveled, and fatalities per 100,000 people.

How is the DVRPC Region Performing? Between 2001 and 2009, the DVRPC region experienced a 29 percent decrease in fatalities per hundred million VMT and a 15 percent decline in fatalities per 100,000 people. During this period the total number of fatalities declined by 27.7 percent, even as VMT increased by 1.5 percent.

[Download PDF](#) [0.1 MB pdf]



Source: PennDOT, NJ DOT



HOW IS THE DVRPC REGION PERFORMING?

Between 2001 and 2009, the DVRPC region experienced a 29 percent decrease in fatalities per hundred million VMT and a 15 percent decline in fatalities per 100,000 people. During this period, the total number of fatalities declined by 27.7 percent, even as VMT increased by 1.5 percent.

INDICATORS:

FATALITY RATE, defined as fatalities per hundred million vehicle miles traveled, and fatalities per 100,000 people.



HAVE VEHICLE FATALITIES DECLINED?

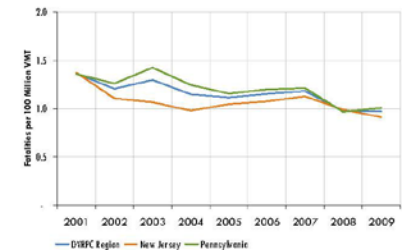
Tracking the region's fatality rate over time will show whether highway safety has improved or diminished. The U.S. Department of Transportation defines a fatality as death from injuries sustained in a vehicle crash within 30 days of the crash. Fatalities include those that occur in crashes between a vehicle and a pedestrian, a vehicle and a motorcycle, or a vehicle and a bicyclist.

death in the United States for all persons between 1 and 34 years of age. The per-capita indicator is added because an increase in driving under safer conditions (such as on limited-access freeways, which tend to have lower crash rates) can reduce the fatality rate per hundred million VMT. This can mask the fact that driving more miles still increases the overall risk of being involved in a fatal accident.

Tracking Progress Toward 2030 also identified total crashes and the crash rate per million vehicle miles traveled (VMT). These indicators were not included in this update, as the Federal Highway Administration has focused its safety efforts on reducing injuries and fatalities that occur on the nation's highways. This version of Tracking Progress also considers roadway fatalities per 100,000 people. Vehicle crashes are the single leading cause of

Seatbelts save lives, and the 2009 Annual Crash Data Bulletin for the Delaware Valley notes that primary seatbelt laws improve compliance by 15 percent on average. New Jersey's primary seatbelt law allows police to pull-over drivers for not wearing a belt. Pennsylvania's seatbelt law is secondary, which means a driver can only be cited for not wearing a belt after being pulled over for a primary violation like speeding.

DVRPC REGION FATALITIES PER HUNDRED MILLION VEHICLE MILES TRAVELED



Source: PennDOT, NJDOT

CONNECTIONS THE REGIONAL PLAN FOR A SUSTAINABLE FUTURE

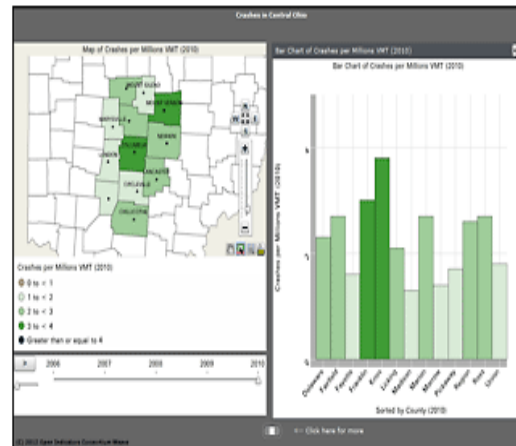
Regional Indicators

- MORPC: 12 transportation
 - Transportation safety
 - Crashes/million VMT
 - Safe routes to school
 - School participation

Transportation Safety

In 2010, there were 2.6 crashes per million vehicle miles traveled (VMT) per day in central Ohio, down from nearly 3 crashes per million VMT in 2006.

Source: MORPC



2012-2035 Metropolitan Transportation Plan



Performance Measures

morpc
Mid-Ohio Regional Planning Commission

Brainstorming!