

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

2017 Safety Program Performance Measures



Federal Safety Performance Management Requirements

Safety Performance Management (Safety PM) is part of the overall Transportation Performance Management (TPM) program, which the Federal Highway Administration defines as a strategic approach that uses system information to make investments and policy decisions to achieve national performance goals. Performance management is a critical element in roadway safety and is measured by the number of lives lost and serious injuries sustained on our Nation's roadways.

States use the safety performance management framework to assist them in making progress toward improving road safety through the Highway Safety Improvement Program (HSIP), which requires a data-driven, strategic approach to improving highway safety through performance. The Safety PM Final Rule supports the HSIP, as it establishes safety performance measure requirements for the purpose of carrying out the HSIP and to assess fatalities and serious injuries on all public roads throughout the nation; The Safety PM Final Rules also requires State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) to set HSIP targets for the following five safety performance measures.

- **Number of fatalities:** The total number of persons suffering fatal injuries in a motor vehicle crash during a calendar year.
- **Rate of fatalities (per 100 million vehicle miles traveled (VMT)):** The ratio of total number of fatalities to the number of vehicle miles traveled (VMT expressed in 100 Million VMT) in a calendar year.
- **Number of serious injuries:** The total number of persons suffering at least one serious injury in a motor vehicle crash during a calendar year.
- **Rate of serious injuries (per 100 million VMT):** The ratio of total number of serious injuries to the number of VMT (VMT expressed in 100 Million VMT) in a calendar year.
- **Number of non-motorized fatalities and number of non-motorized serious injuries combined:** The combined total number of non-motorized fatalities and non-motorized serious injuries involving a motor vehicle during a calendar year.

What You Need to Know About Establishing Targets

- States required to establish initial statewide targets in their August 31, 2017 HSIP Annual Report for calendar year 2018, and annually thereafter.
- Targets are applicable to all public roads regardless of functional classification or ownership.
- State DOT and MPOs must coordinate when establishing targets, to the maximum extent practicable.
- A wide range of stakeholders should work together to establish targets.
- Established targets should be data-driven and realistic.
- MPOs must establish targets specific to the MPO planning area for the same five safety performance measures for all public roads in the MPO planning area within 180 days after the State establishes their targets. MPOs may select one of the following options for each individual safety performance measure:
 - a. Agree to support the State target; OR
 - b. Establish specific numeric targets for a safety performance measure (number or rate).
- MPO targets are reported to the State DOT, and made available to FHWA, upon request. MPO targets are not included in the assessment of whether a State met or made significant progress toward meeting its targets.

Establishing TxDOT's Safety Performance Targets

- Targets developed as part of a two-year, statewide collaborative effort that involved feedback from stakeholders representing the four E's of Highway Safety: Engineering, Enforcement, Emergency Response, & Education.
- Held Safety Target Setting Coordination Workshop and meetings for stakeholder discussions
- Stakeholder Consensus: Two percent reduction by Strategic Highway Safety Plan Target Year of 2022

Establishing NCTCOG's Safety Performance Targets

- NCTCOG participated in the state's two-year, statewide stakeholder collaborative effort to develop safety targets.
- NCTCOG staff conducted data analysis using regional crash statistics for the five safety performance measures.
- Established draft recommendation to "Support the State's Targets".
- Regional performance targets were approved by NCTCOG's Regional Safety Advisory Committee; Surface Transportation Technical Committee; and Regional Transportation Council.
- Established the Regional Safety Position: "Even one death on the transportation system is unacceptable. Staff will work with our partners to develop projects, programs, and policies that assist in eliminating serious injuries and fatalities across all modes of travel."

NCTCOG's 2018 Safety Performance Targets

Safety Performance Targets	TxDOT 2018 Targets	NCTCOG 2018 Targets
# of Fatalities	3,704	665
Fatality Rate	1.432	0.96
# of Serious Injuries	17,565	3,612
Serious Injury Rate	6.74	5.18
# of Non-motorized Fatalities & Serious Injuries	2,151	560

Targets are based on five-year averages and will be revisited annually.

NCTCOG 12-County MPA Crash and Fatality Data 2013-2017

NCTCOG receives regional crash data from TxDOT's Crash Records Information System (CRIS) annually. The performance measures below highlight reportable crashes and fatalities that occurred in the NCTCOG 12-county Metropolitan Planning Area (MPA) from 2013 to 2017. The data below indicates that in 2017 the NCTCOG region experienced one crash every four minutes and one fatality every 12 hours.

2013-2017 Crashes						
County	2013	2014	2015	2016	2017	% Change 2016-2017
Collin	10,419	11,845	12,893	13,865	13,073	-5.71%
Dallas	40,330	42,895	48,811	55,642	50,535	-9.18%
Denton	8,975	9,886	11,655	12,182	11,931	-2.06%
Ellis	1,858	2,173	2,401	2,595	2,724	4.97%
Hood	638	752	749	795	820	3.14%
Hunt	949	1,110	1,317	1,396	1,297	-7.09%
Johnson	2,010	1,998	1,983	2,269	2,346	3.39%
Kaufman	1,388	1,480	1,752	2,011	1,911	-4.97%
Parker	1,804	1,999	1,981	2,175	2,306	6.02%
Rockwall	1,026	1,019	1,285	1,362	1,359	-0.22%
Tarrant	27,595	28,222	30,714	34,596	34,226	-1.07%
Wise	903	910	791	915	953	4.15%
Total	97,895	104,289	116,332	129,803	123,481	-4.87%

2013-2017 Fatalities					
2013	2014	2015	2016	2017	% Change 2016-2017
41	41	36	50	68	36.00%
218	235	256	317	282	-11.04%
40	36	34	49	49	0.00%
19	23	25	28	34	21.43%
5	8	3	15	11	-26.67%
15	18	18	29	26	-10.34%
18	23	23	23	21	-8.70%
12	24	17	28	31	10.71%
18	15	19	21	20	-4.76%
8	3	4	11	13	18.18%
139	142	155	159	180	13.21%
10	14	20	19	21	10.53%
543	582	610	749	756	0.93%

*Data Source: TxDOT Crash Records Information System (CRIS) current as of 4/2/2018 - All TxDOT disclaimers apply to this information.
 Note: A reportable motor vehicle crash is defined by TxDOT as: "Any crash involving a motor vehicle in transport that occurs or originates on a traffic way, results in injury to or death of any person, or damage to property of any one person to the apparent extent of \$1,000."*

2017 Contributing Factors for Serious Injury and Fatality Crashes

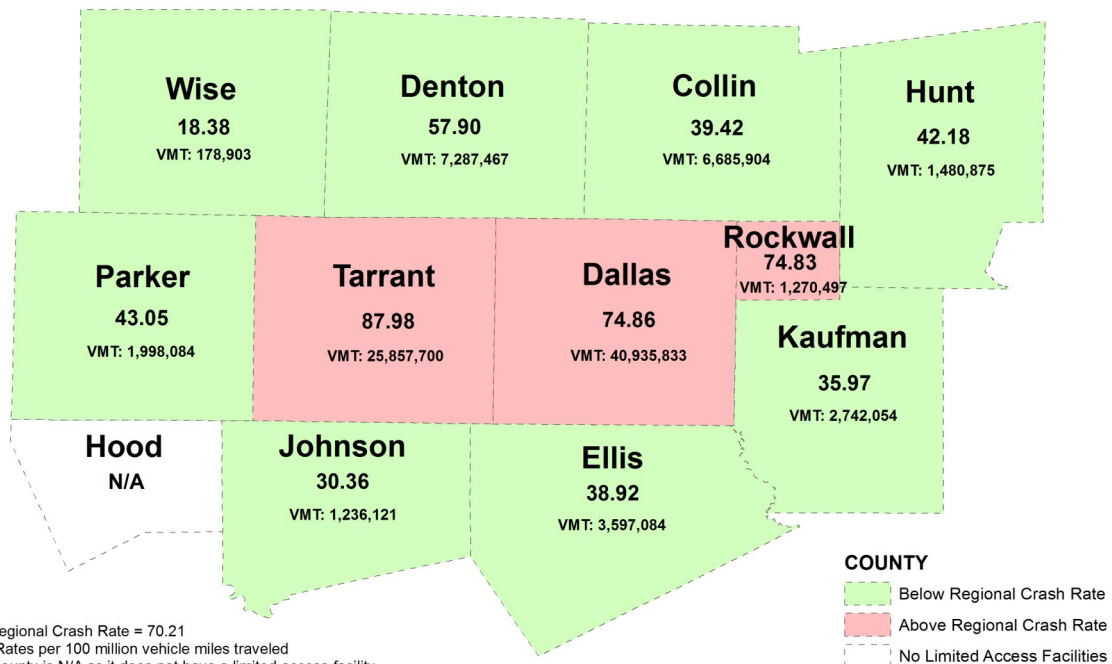
	Top Ten Contributing Factors—Limited Access Facilities Only	Percentage
1	Speeding - (Overlimit / Unsafe Speed / Failed to Control Speed)	33.15%
2	Failed to Drive in Single Lane	10.44%
3	Driver Related (Distraction in Vehicle / Driver Inattention / Road Rage / Drove Without Headlights / Cell/ Mobile Device Use - (Talking / Texting / Other / Unknown) [0.07%])	10.24%
4	Under Influence - (Had Been Drinking / Alcohol / Drug)	9.10%
5	Faulty Evasive Action	7.88%
6	Changed Lane When Unsafe	6.81%
7	Followed Too Closely	3.98%
8	Pedestrian - Failed to Yield Right of Way to Vehicle	3.71%
9	Disabled in Traffic Lane	2.36%
10	Fatigued or Asleep	2.09%

Note: The Contributing Factor Analysis above includes Primary, Secondary, and Tertiary Contributing Crash Factors on limited access facilities in the NCTCOG 12-County MPA only. Speeding has been the #1 contributing factor for all analysis done from 2015-2017. For more information on contributing factor trends for previous years, please visit the NCTCOG Safety Program webpage.

2017 Crash Rates by County

Annually, NCTCOG calculates crash rates on limited access facilities for the NCTCOG 12-County MPA. The map below displays crash rates by county in comparison to the 2017 regional crash rate of 70.21 crashes per 100 million vehicle miles traveled. Counties that have a higher crash rate than the regional rate are shown in red, while counties with a rate below the regional crash rate are shown in green.

2017 Limited Access Roadway Crash Rates by County: NCTCOG 12 - County MPA



Note:
 2017 Regional Crash Rate = 70.21
 Crash Rates per 100 million vehicle miles traveled
 Hood County is N/A as it does not have a limited access facility

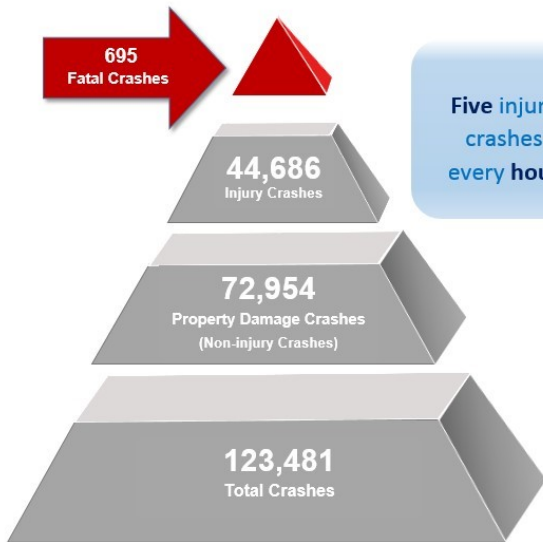
Source:
 Crash Data - TxDOT Crash Records Information System (CRIS)
 VMT Data - NCTCOG Trans Model Performance Reports



NCTCOG Traffic Incident Management Program

2017 Regional Crash Pyramid - NCTCOG 12-County MPA

The crash pyramid represents the high volume of crashes in the region, equating to five injury crashes every hour. There is an obvious need for highly effective training for those agencies responsible for managing and clearing traffic incidents. Traffic incident management training promotes consistency among agency responders, significantly improves responder and motorist safety, and reduces the duration of traffic incidents.



Five injury crashes every hour

On average, each injury crash requires

- 2 Law Enforcement
- 4 Fire/Rescue
- 2 Emergency Medical Services
- 1 Towing and Recovery
- 9 Responders

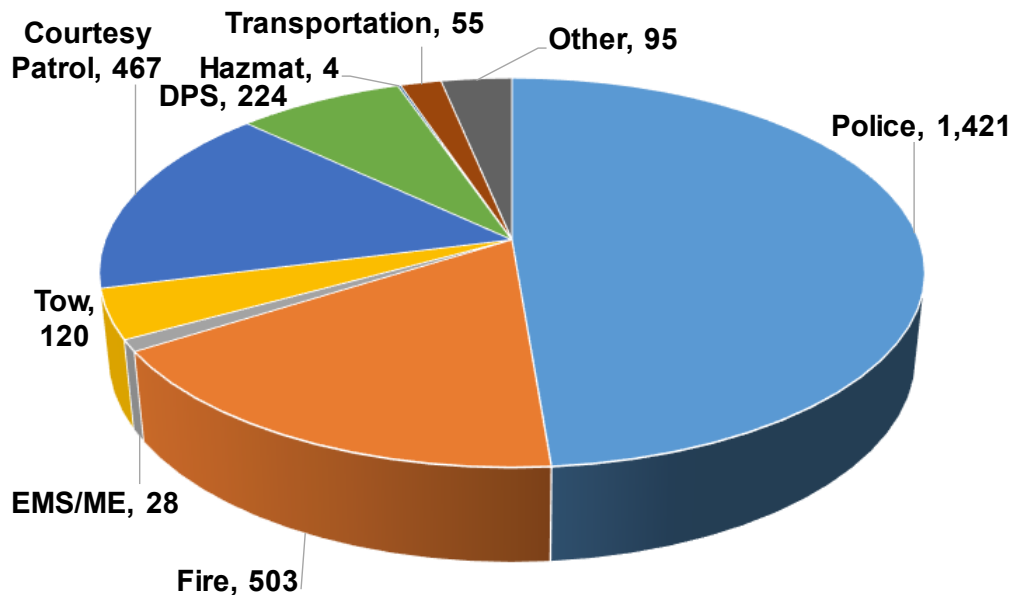
Potentially 45 responders "working in or near moving traffic" every hour 24/7/365.

TIM First Responder and Manager's Course

The Traffic Incident Management (TIM) training series was developed in February of 2003 and first offered in December of 2003. The goal of the TIM training course is to initiate a common, coordinated response to traffic incidents that will build partnerships, enhance safety for emergency personnel, reduce upstream traffic accidents, improve the efficiency of the transportation system, and improve the air quality in the Dallas-Fort Worth region. The **First Responder and Manager's Course**, geared towards those with daily involvement in responding to traffic incidents, is offered six times per year. The training is eligible for TCOLE Credits, Fire Commission Credits, and Emergency Medical Services Continuing Education Units.

First Responder and Manager's Course Attendance		
2003 - 2017	2018	Total
2,802	115	2,917

First Responder and Manager's Course Attendance - Breakdown By Area



NCTCOG Traffic Incident Management (TIM) Program

First Responder and Manager's Course Attendance - Breakdown By Agency

Cities and Counties Represented (61) - Since August 2013

Allen Argyle Arlington Aubrey Azle Balch Springs Bedford Benbrook Burleson Cleburne Colleyville Corinth Cresson Dallas Decatur	DeSoto Euless Farmers Branch Flower Mound Fort Worth Frisco Garland Glenn Heights Granbury Grand Prairie Grapevine Greenville Hurst Irving	Joshua Keller Kennedale Krum Lake Cities Lake Worth Lewisville Mansfield McKinney Melissa Mesquite N. Richland Hills Northlake Plano	Ponder Prosper Richardson Richland Hills Roanoke Rockwall Sachse Springtown University Park Venus Waxahachie Willow Park Wilmer
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Counties: Collin, Dallas, Erath, Rockwall, and Tarrant

****The last major course update was done in August 2013**

****A complete list of Agency Attendance from 2003 is available upon request.**

TIM Executive Level Course Attendance

The **Executive Level Course** was introduced in 2005 and is geared towards agency decision and policy makers and provides a high-level overview of the topics discussed in the First Responder and Manager's Course. The Executive Level Course is offered twice a year.

Police	Fire	City Staff	Elected Officials	Public Works/ Strategic Services Transportation	Medical Staff	Other	Total (February 2005 - May 2018)
346	152	30	16	48	17	181	790

Photogrammetry Training Attendance: 2007— May 2018

Photogrammetry Training is offered as a complement to the region's TIM Training series. The Photogrammetry System, used for crash reconstruction, is an image-based 3D system that calculates measurements from photographs and digital images. The System helps reduce the time needed to investigate a crash scene. The following training is offered twice a year:

- Basic Training - five days (includes a three-day iWitness™ workshop and a two-day CAD workshop)
- Advanced Training - two days (offered to students who completed Basic Training)

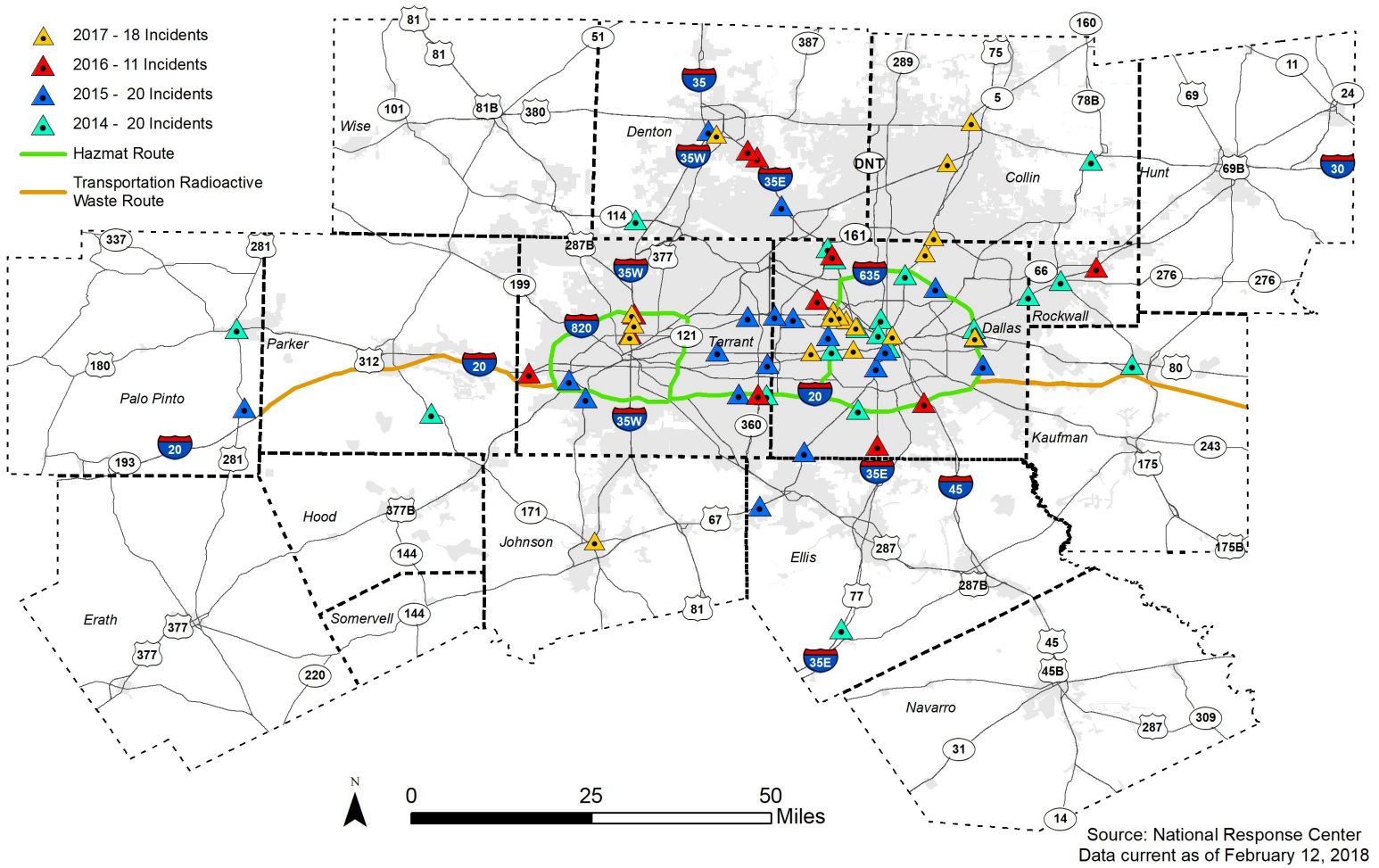
Course	Total
Basic Training	210
Advanced Training	129

Cities and Counties Represented (69) - As of May 2018

Addison Allen Alvarado Anna Arlington Azle Balch Springs Bedford Benbrook Carrollton Cedar Hill Cleburne Coppell	Colleyville Dallas Decatur Denton DeSoto Duncanville Ennis Euless Fairview Farmers Branch Ferris	Flower Mound Forest Hill Forney Fort Worth Frisco Glenn Heights Granbury Grand Prairie Grapevine Greenville Highland Park	Hurst Irving Lake Dallas Lancaster Lewisville Mansfield McKinney Melissa Mesquite Midlothian North Richland Hills	Red Oak Richardson Roanoke Rockwall Royse City Sachse Saginaw Seagoville Springtown Terrell Venus	Watauga Waxahachie Weatherford Wilmer Collin County Dallas County Denton County Tarrant County DART DFW Airport FWTA TxDPS
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2017 NCTCOG 16-County HazMat Incidents

NCTCOG continues to monitor hazardous material spills on regional limited access facilities using data from the National Response Center. This analysis helps identify roadway segments and routes that may be impacted by hazardous materials carriers. Currently, IH 20 and the regional loops IH 820 and IH 635 are designated as HazMat routes. In 2017, there were 18 significant HazMat spills within the DFW region.



County	2014	2015	2016	2017	Total
Collin	1	0	0	3	4
Dallas	10	9	4	10	33
Denton	1	2	2	1	6
Ellis	1	1	0	0	2
Erath	0	0	0	0	0
Hood	0	0	0	0	0
Hunt	0	1	0	0	1
Johnson	0	0	0	1	1
Kaufman	2	0	0	0	2
Navarro	0	0	0	0	0
Parker	1	0	0	0	1
Palo Pinto	1	1	0	0	2
Rockwall	2	0	1	0	3
Somervell	0	0	0	0	0
Tarrant	1	6	4	3	14
Wise	0	0	0	0	0
Total	20	20	11	18	69

Mobility Assistance Patrol Program

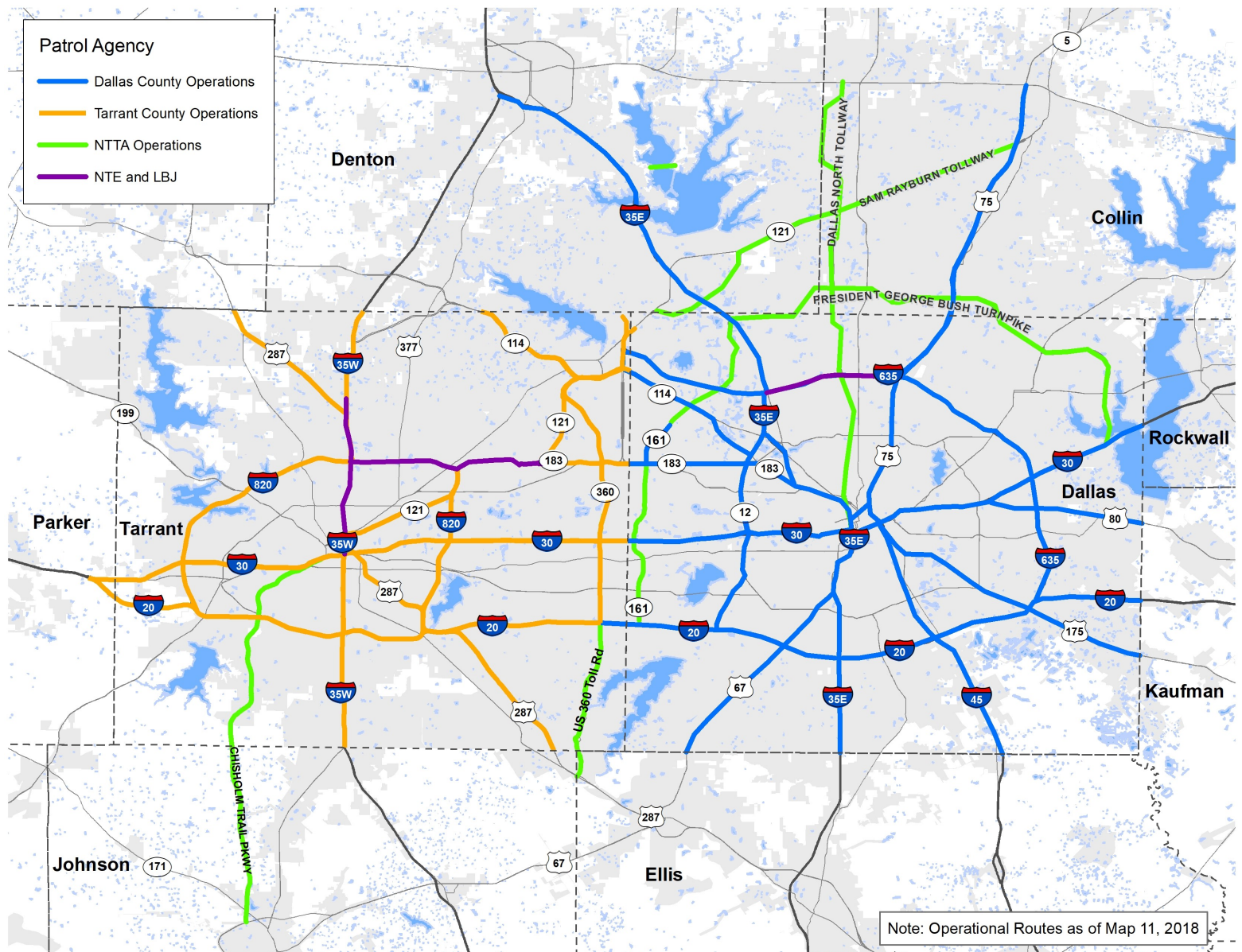
The Mobility Assistance Patrol Program (MAPP) is vital to the region's Traffic Incident Management operations. MAPP coverage is focused on congested roadway systems in Dallas and Tarrant Counties and extends into portions of Collin, Denton, and Johnson Counties. The regional MAPP helps alleviate congestion on area highways/freeways and toll roads by providing free assistance to stalled and stranded motorists by assisting with flat tires, stalled vehicles, and minor accidents and ultimately getting the vehicles operating or off the facility completely. Traffic control assistance is also provided to law enforcement when deemed necessary or when requested by law enforcement.

The MAPP is currently operated by the Dallas County Sheriff's Office, Tarrant County Sheriff's Office, and the North Texas Tollway Authority (NTTA). Portions of Dallas and Tarrant County Operations are currently being patrolled by private sector partner agencies on the LBJ TEXpress and NTE TEXpress corridors. Each agency's coverage area is shown in the map below.

Mobility Assistance Patrol Program Performance Measures

Agency	2016 Assists	2017 Assists
Dallas County Operations	63,686	66,166
Tarrant County Operations	28,493	26,687
NTE	4,394	4,436
LBJ	6,681	7,055
NTTA	22,942	26,138

Patrol Routes



In 2017, Dallas and Tarrant County Mobility Assistance Patrols

provided:



••• 38,031

Driver Assistance /
Stalled Vehicle



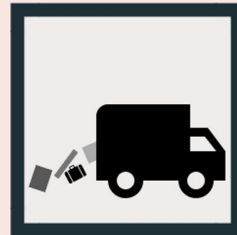
••• 28,170

Courtesy Check /
Directions



••• 3,559

Crash Assistance



••• 5,578

Debris Removal



••• 8,314

Protection to First
Responders



••• 6,130

Abandoned Vehicle
Check

Total Combined Assists: 92,853
Combined Highway Miles Patrolled: 464

*3,071 assists were either not
found or cancelled before a
patrol vehicle could arrive*

Hours of Operation

Phone Number

Dallas County



Mon - Fri 5 AM - 9:30 PM
Sat - Sun 11 AM - 7:30 PM



(214) 320-4444

Tarrant County



Mon - Sun 6 AM - 10 PM



(817) 884-1213

NTTA



Mon - Sun 24 Hours a Day



(214) 224-2203

NTE and
LBJ TEXpress



Mon - Sun 24 Hours a Day



(972) 661-8693



Wrong-Way Driving Mitigation Pilot Programs - Dallas and Tarrant Counties

NCTCOG and our regional partners continue efforts to prevent wrong-way driving incidents and crashes. Through the Wrong-Way Driving (WWD) Mitigation Pilot Program, NCTCOG continues to work with the Dallas and Fort Worth TxDOT district offices to implement intersection, roadway, and technology improvements that will reduce the frequency with which these crashes occur.

The first phase of the WWD Mitigation Pilot program began in Dallas County in 2014 and incorporated strategies to replace conflicting lane and arrow markings, signal enhancements, and other intersection-related improvements. This project has since expanded to several additional cities listed in the table below.

City/Agency	Total Number of Intersections	City/Agency	Total Number of Intersections
Allen	5	Lewisville	4
Carrollton	15	McKinney	8
Dallas	194	Mesquite	16
Farmers Branch	2	Plano	12
Garland	15	Richardson	7
Grand Prairie	25	Rowlett	4
Irving	38	TxDOT	37
		Total	382

Phase II of the WWD project was initiated in 2015 and focused on 54.2 miles of seven freeway corridors in Tarrant County. To date work has concentrated along the IH 30 corridor.

Priority	Corridor-Area	From	To	Miles
1	IH 30 West Freeway	University Drive	Bridgewood Drive	6.2
2	North Downtown Fort Worth	Spur 280	Yucca Avenue/Northside Drive	2.4
3	SH 360	Spur 303/Pioneer Parkway	Trinity Blvd.	7.9
4	SH 199/Jacksboro Highway	IH 820	FM 730	11.0
5	IH 820 West Loop	Old Decatur Road	Winscott Road	14.0
6	IH 820 East Loop	Trinity Blvd.	IH 20/Business 287/Mansfield Highway	8.2
7	IH 30 Entertainment District	Fielder Road	SH 360	4.5

NTTA is also working to combat wrong way driving by implementing similar countermeasures including ITS technologies. A pilot program which uses traffic cameras and specialized software that can detect a vehicle moving in the wrong direction has been implemented in Dallas County.

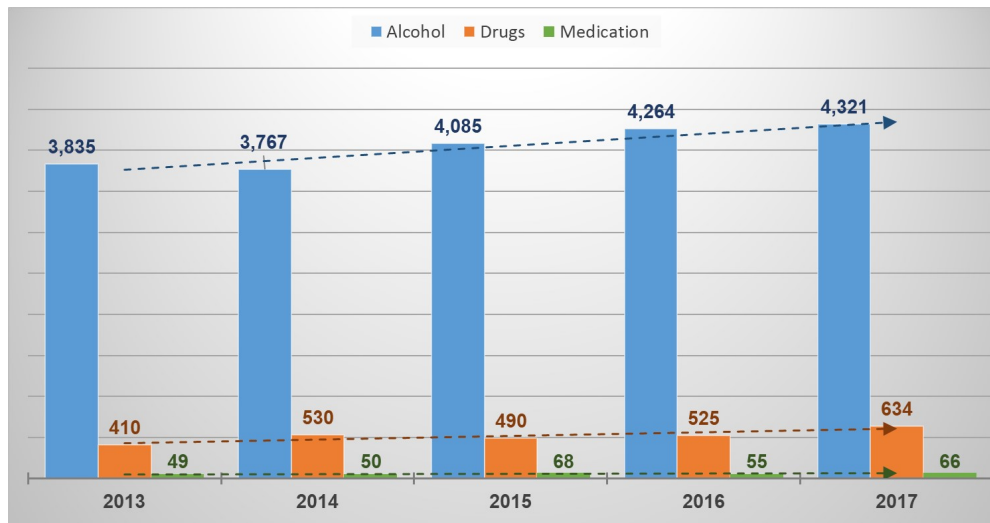
12-County MPA - Wrong Way Driving Crashes: 2013-2017

Crashes caused by wrong-way driving, while less frequent than other crash types, are especially dangerous and often fatal. From 2013 to 2017, the number of crashes caused by a wrong way driver increased 11.2 percent within the 12-county NCTCOG region. In 2017 alone, there were 526 such incidents, 43 of which resulted in at least one serious injury, and 16 of which included at least one fatality.

Year	2013	2014	2015	2016	2017	TOTAL
County	Wrong-Way Driving Crashes	Wrong-Way Driving Crashes	Wrong-Way Driving Crashes	Wrong-Way Driving Crashes	Wrong-Way Driving Crashes	2013 - 2017
Collin	25	28	30	36	33	152
Dallas	238	253	231	240	249	1211
Denton	33	45	52	53	46	229
Ellis	10	17	12	12	18	69
Hood	4	9	10	12	7	42
Hunt	11	7	12	11	15	56
Johnson	16	10	28	23	26	103
Kaufman	7	20	16	19	11	73
Parker	16	16	5	10	14	61
Rockwall	2	4	4	2	2	14
Tarrant	105	116	106	112	97	536
Wise	6	7	12	12	8	45
Totals	473	532	518	542	526	2591

Crashes Involving Impaired Drivers: 2013-2017

Research studies by the Federal Highway Administration, the National Transportation Safety Board, the Texas A&M Transportation Institute, and various state agencies have found that impaired driving is a primary contributing factor in WWD crashes on limited access facilities. Also important to note is that crashes that involve impaired drivers can and do occur on all roadways. The table below highlights crashes that involved alcohol, drugs, or medication as a contributing factor between 2013 and 2017 in the North Central Texas region. During this time period, the number of crashes involving an impaired driver has increased 17 percent overall and the number of crashes specifically involving the use of illegal drugs has increased 54 percent.



Note: The Impaired Driving Analysis includes TxDOT crash records where the use of alcohol, illegal drugs, or medication were found to have contributed to a motor vehicle crash within the NCTCOG 16-County area.

Takata Airbag Recall

Nearly 70 million Takata airbag inflators present on 19 vehicle manufacturers are or will be under recall by 2019. More than a half-million of these defective airbags are estimated to be in North Texas alone. For North Texas residents, the situation is particularly urgent.

Prolonged exposure to high heat and humidity over time degrades the chemical propellant in a defective airbag inflator, which makes it more explosive and increases risk of serious injury or death. Even a minor fender-bender can cause the defective airbag inflators to rupture, spraying metal shrapnel into drivers and passengers. To date there have been 15 deaths in the U.S. due to this issue, two of which occurred in Texas.

NCTCOG has joined with the National Highway Traffic Safety Administration and several local partners to spread the word about the recall by passing out information at outreach events, posting to social media, attending and hosting informational presentations, and through a targeted mail out in May 2018, where owners of the vehicles most at risk were notified of the dangers.



NCTCOG encourages North Texas drivers to go to www.airbagrecall.com/ to check if their car's airbags are under recall. If your airbag is under recall, you can set up an appointment with a dealership to have the airbag replaced free of charge. It is important to note that, even if your vehicle is not currently under a recall, it could be affected in the future. To be notified of future recalls, you can sign up for e-mail alerts at nhtsa.gov.

Highway Safety Improvement Program

The TxDOT Highway Safety Improvement Program (HSIP) Call for Projects (CFP) is a funding opportunity for highway safety projects that decrease the number of fatalities and serious injuries on all public roadways. Funds are provided for construction and operational improvements that address crash types outlined in the Texas Strategic Highway Safety Program (SHSP). The 2017 TxDOT HSIP CFP resulted in the following projects for our region:

- The Dallas District received approval on 31 projects for a total of \$25,208,101.
- The Fort Worth District received approval on 15 projects for a total of \$4,042,584.

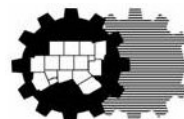
The 2018 TxDOT HSIP CFP opened on June 4, 2018 and project submissions are due on August 15, 2018. Project selections will be made in December 2018. More information on the 2018 HSIP CFP can be found at: <http://www.nctcog.org/trans/safety/HSIPCFP.asp>.

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