

REGIONAL CRASH TRENDS & CRASH DATA ANALYSIS

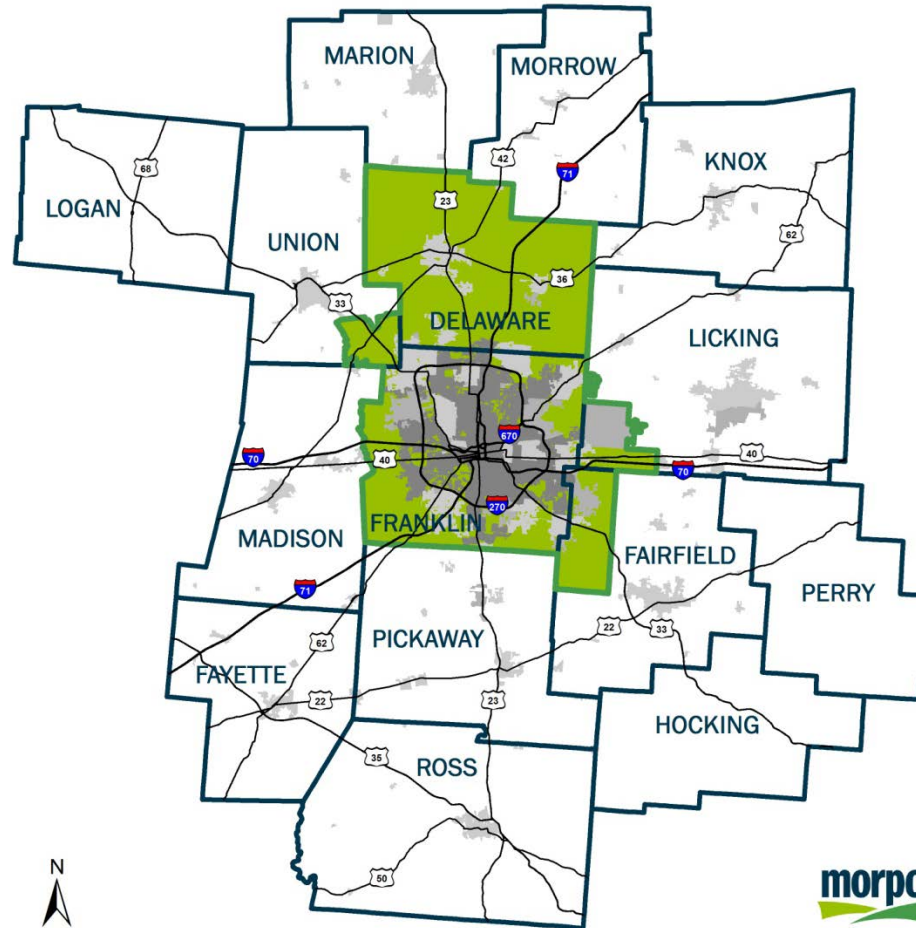
Franklin County DUI Task Force

(4.18.18)



Mid-Ohio Regional
Planning Commission

MORPC Metropolitan Planning Area



REGIONAL OVERVIEW



REGIONAL OVERVIEW (2012-2016)



- Total number of crashes was 15% higher in 2016 compared to 2012.
- Still 473 crashes over the last 5 years resulted in at least one fatality.

CRASH TRENDS BY YEAR, 2012 TO 2016

| YEAR | CRASH STATISTICS | | | | OCCUPANT STATISTICS | | | | SAFETY METRICS | | | |
|------------------------|------------------|----------------|-------------------------|---------------|---------------------|------------------|----------------|-------------|-----------------------|-------------|-------|--|
| | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Fatalities | Serious Injuries | Minor Injuries | No Injuries | Total People Involved | Injury Rate | EPDO | Fatalities and Serious Injuries per 100,000 population |
| 2012 | 97 | 9,092 | 27,069 | 36,258 | 106 | 885 | 12,053 | 79,972 | 93,016 | 25.34% | 2.89 | 68.24 |
| 2013 | 81 | 8,783 | 25,583 | 34,447 | 90 | 882 | 11,694 | 75,312 | 87,978 | 25.73% | 2.93 | 66.30 |
| 2014 | 84 | 9,341 | 28,339 | 37,764 | 91 | 803 | 12,377 | 82,039 | 95,310 | 24.96% | 2.75 | 60.22 |
| 2015 | 96 | 10,487 | 30,577 | 41,160 | 108 | 922 | 14,176 | 88,974 | 104,180 | 25.71% | 2.83 | 68.34 |
| 2016 | 115 | 10,863 | 30,694 | 41,672 | 124 | 871 | 14,642 | 89,566 | 105,203 | 26.34% | 2.83 | 65.30 |
| 5-Year Total | 473 | 48,566 | 142,262 | 191,301 | 519 | 4,363 | 64,942 | 415,863 | 485,687 | | | |
| Annual Average | 95 | 9,713 | 28,452 | 38,260 | 104 | 873 | 12,988 | 83,173 | 97,137 | 25.6% | 2.84 | 66 |
| Pct. Change, 2012-2016 | 18.6% | 19.5% | 13.4% | 14.9% | 17.0% | -1.6% | 21.5% | 12.0% | 13.1% | 3.9% | -2.1% | -4.3% |

Notes

- Shaded orange cells indicate the year with the highest value for each respective column.
- The Equivalent Property Damage Only (EPDO) index is calculated by the following formula: $[(37.56 \times (\#FatalCrashes + \#SeriousInjuryCrashes)) + (6.55 \times \#MinorInjuryCrashes) + (4.44 \times \#PossibleInjuryCrashes) + \#NoInjuryCrashes] / \#TotalCrashes$.

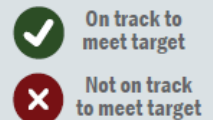
PERFORMANCE MONITORING

TRANSPORTATION SAFETY PERFORMANCE MEASURES

| PERFORMANCE MEASURE | 2015 BENCHMARK | 2020 | | 2040 | | 2017 GRADE |
|--|----------------|--------|-------|--------|--------|------------|
| | | TARGET | TRACK | TARGET | TRACK | |
| Number of fatalities | 96 | -10% | 10.2% | -39% | 27.2% | ✗ |
| Number of serious injuries | 890 | -10% | -7% | -39% | -32.9% | ✗ |
| Number of non-motorized fatal & serious injuries | 138 | -10% | 22.7% | -39% | 180.5% | ✗ |
| Rate of fatalities per 100 million VMT | 0.69 | 0.63 | 0.76 | 0.42 | 0.86 | ✗ |
| Rate of serious injuries per 100 million VMT | 6.40 | 5.83 | 5.95 | 3.91 | 4.21 | ✗ |

Notes

- The benchmark and targets represent five year rolling averages
- Million Vehicle Miles Traveled (MVMT)
- "TARGET" = Performance target included in the 2016-2040 MTP
- "TRACK" = Progress should current trends continue



FATALITIES & SERIOUS INJURIES



YEAR-BY-YEAR COMPARISON OF SAFETY PERFORMANCE

| YEAR | NUMBER OF FATALITIES | NUMBER OF SERIOUS INJURIES | NUMBER OF NON-MOTORIZED FATAL & SER INJ | RATE OF FATALITIES/ 100 MVMT | RATE OF SERIOUS INJ/ 100 MVMT |
|-------|----------------------|----------------------------|---|------------------------------|-------------------------------|
| 2010 | 100 | 967 | 113 | 0.72 | 6.95 |
| 2011 | 102 | 949 | 115 | 0.74 | 6.86 |
| 2012 | 104 | 939 | 123 | 0.76 | 6.80 |
| 2013 | 98 | 921 | 125 | 0.71 | 6.65 |
| 2014 | 97 | 898 | 133 | 0.70 | 6.46 |
| 2015 | 100 | 883 | 138 | 0.72 | 6.33 |
| 2016 | 104 | 877 | 144 | 0.74 | 6.26 |
| TREND | (Increasing) | (Decreasing) | (Increasing) | (Increasing) | (Decreasing) |

Notes

- The values shown represent five year rolling averages (ex. for 2004-2008) $(106+113+95+93+121)/5=106$
- Shaded orange cells indicate the highest value for each respective column

SERIOUS CRASH TYPES

Fixed object, angle &
pedestrian crashes



CRASH TYPES (2012-2016)



- Rear-end collisions were most common crash type.
- Fortunately, only 1% of rear-end crashes resulted in a fatality or serious injury.

CRASH TYPE BY FREQUENCY AND SEVERITY

| CRASH TYPE | TOTAL CRASHES | CRASH SEVERITY | | | | | FSI RATE |
|----------------------------|---------------|----------------|----------------|--------------|-----------|-----------------|----------|
| | | Fatal | Serious Injury | Minor Injury | No Injury | Possible Injury | |
| Rear End | 62,254 | 46 | 573 | 6,034 | 45,794 | 9,806 | 1.0% |
| Angle | 30,715 | 42 | 682 | 4,403 | 21,023 | 4,565 | 2.4% |
| Sideswipe - Passing | 25,121 | 11 | 202 | 1,573 | 21,424 | 1,911 | 0.8% |
| Fixed Object | 20,928 | 137 | 694 | 3,003 | 15,036 | 2,058 | 4.0% |
| Parked Vehicle | 15,694 | 9 | 102 | 616 | 14,437 | 530 | 0.7% |
| Left Turn | 10,749 | 27 | 375 | 2,148 | 6,436 | 1,763 | 3.7% |
| Backing | 6,437 | 2 | 16 | 89 | 6,134 | 196 | 0.3% |
| Animal | 4,311 | 0 | 9 | 121 | 4,046 | 135 | 0.2% |
| Sideswipe - Meeting | 3,906 | 27 | 134 | 542 | 2,643 | 560 | 4.1% |
| Other Non-Collision | 3,046 | 5 | 81 | 372 | 2,321 | 267 | 2.8% |
| Pedestrian | 2,714 | 88 | 450 | 1,298 | 223 | 655 | 19.8% |
| Other Object | 1,520 | 1 | 15 | 72 | 1,330 | 102 | 1.1% |
| Head On | 1,447 | 37 | 129 | 319 | 684 | 278 | 11.5% |
| Pedalcycles | 1,417 | 15 | 138 | 713 | 243 | 307 | 10.8% |
| Overturning | 806 | 18 | 87 | 250 | 318 | 133 | 13.0% |
| Unknown | 215 | 7 | 5 | 25 | 159 | 19 | 5.6% |
| Train | 14 | 0 | 1 | 2 | 9 | 2 | 7.1% |
| Other Non-Vehicle | 6 | 0 | 1 | 1 | 2 | 2 | 16.7% |
| Falling From Or In Vehicle | 1 | 1 | 0 | 0 | 0 | 0 | 100.0% |

Notes

- Shaded yellow cells indicate the crash type with the highest value for each respective column.
- FSI Rate refers to the percentage of crashes resulting in a fatality or serious injury

SERIOUS CRASH TYPES (2012-2016)



- Fixed-object, pedestrian, rear end, and angle crashes resulted in the largest number of fatal crashes.
- Pedestrian, other non-vehicle, overturning, head on, and pedalcycle crashes were most likely to result in a FSI

CRASH TYPE BY FREQUENCY AND SEVERITY

| CRASH TYPE | TOTAL CRASHES | CRASH SEVERITY | | | | | FSI RATE |
|----------------------------|---------------|----------------|----------------|--------------|-----------|-----------------|----------|
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| Backing | 6,437 | 2 | 16 | 89 | 6,134 | 196 | 0.3% |
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| Other Non-Collision | 3,046 | 5 | 81 | 372 | 2,321 | 267 | 2.8% |
| Pedestrian | 2,714 | 88 | 450 | 1,298 | 223 | 655 | 19.8% |
| Other Object | 1,520 | 1 | 15 | 72 | 1,330 | 102 | 1.1% |
| Head On | 1,447 | 37 | 129 | 319 | 684 | 278 | 11.5% |
| Pedalcycles | 1,417 | 15 | 138 | 713 | 243 | 307 | 10.8% |
| Overturning | 806 | 18 | 87 | 250 | 318 | 133 | 13.0% |
| Unknown | 215 | 7 | 5 | 25 | 159 | 19 | 5.6% |
| Train | 14 | 0 | 1 | 2 | 9 | 2 | 7.1% |
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| Falling From Or In Vehicle | 1 | 1 | 0 | 0 | 0 | 0 | 100.0% |

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HIGH RISK DRIVERS AND BEHAVIORS

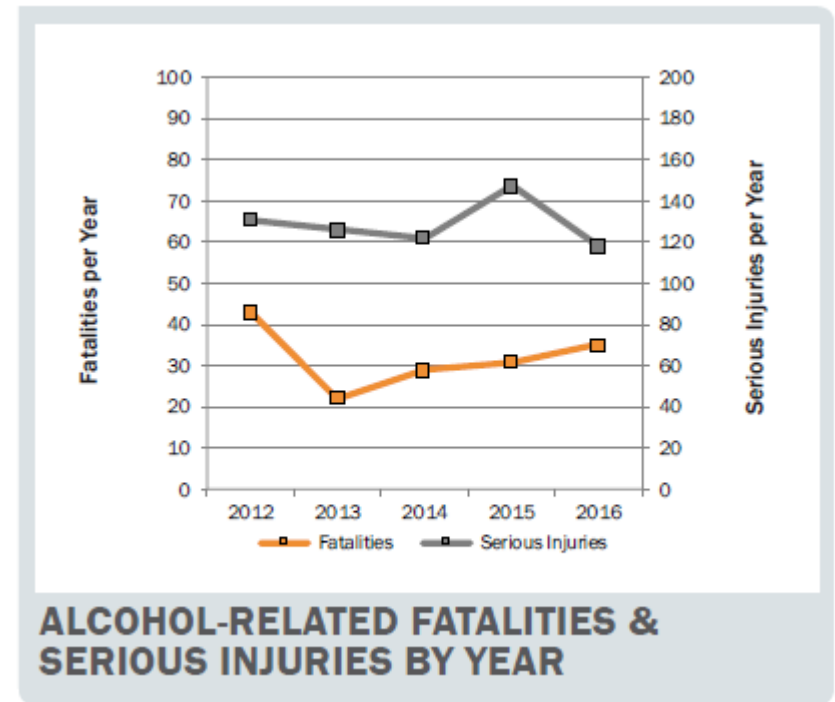
Impaired drivers and young & older drivers



ALCOHOL-RELATED FATALITIES & SERIOUS INJURIES (2012-2016)



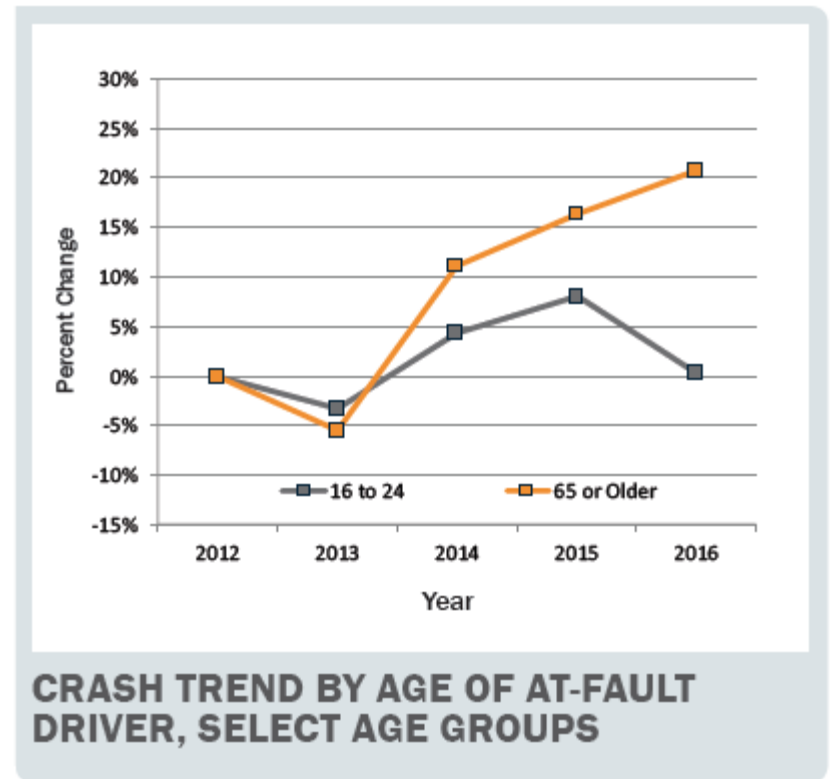
- Alcohol was suspected in 31% of all fatalities and 15% of serious injuries.
- Both alcohol-related fatalities and serious injuries decreased between 2012 and 2016.



YOUNG & OLDER DRIVERS (2012-2016)



- Individuals between the ages of 25 and 29 accounted for the highest number of serious and fatal injuries.
- Crashes attributed to senior drivers has increased by around 21% since 2012.



SPECIAL VEHICLES AND ROADWAY USERS

**Pedestrian, bicyclists, &
motorcycle riders**



MOTORCYCLE CRASHES (2012-2016)

- 20% of all crashes involving a motorcycle resulted in either a fatal or serious injury crash



MOTORCYCLE CRASHES BY SEVERITY, 2012 TO 2016

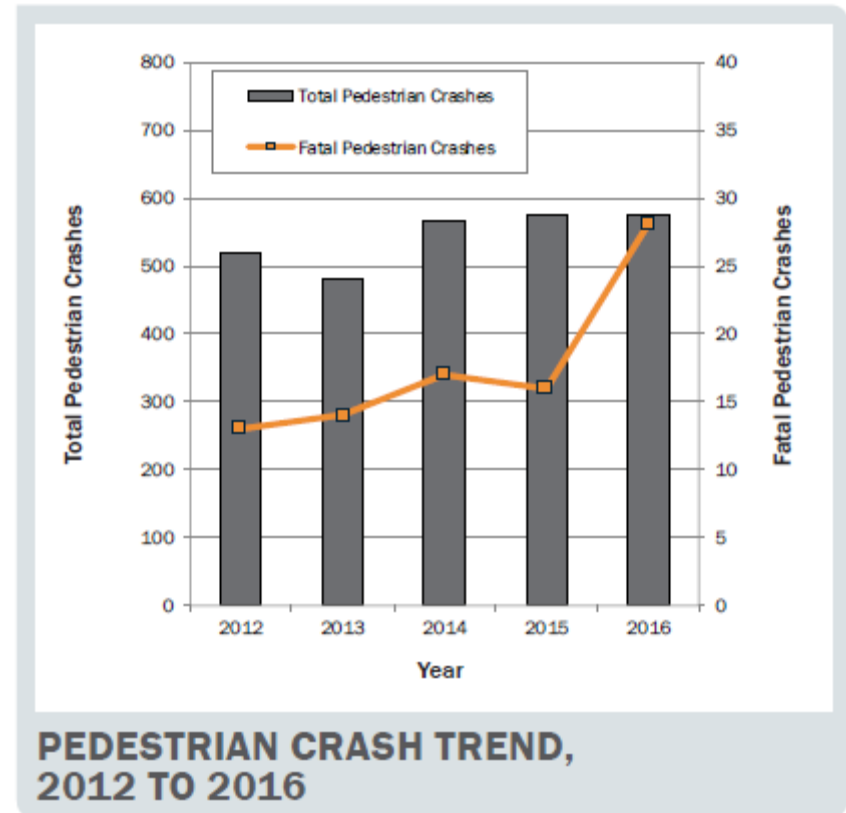
| YEAR | CRASH SEVERITY | | TOTAL CRASHES | FSI RATE |
|-------|----------------|----------------|---------------|----------|
| | Fatal | Serious Injury | | |
| 2012 | 16 | 92 | 471 | 23% |
| 2013 | 13 | 66 | 384 | 21% |
| 2014 | 13 | 65 | 421 | 19% |
| 2015 | 15 | 75 | 431 | 21% |
| 2016 | 20 | 66 | 497 | 17% |
| Total | 77 | 364 | 2,204 | 20% |

Notes

- FSI Rate = the percent of crashes that resulted in a fatal or serious injury.

PEDESTRIAN CRASHES (2012-2016)

- Pedestrian fatalities increased 115% from 2012 to 2016.
- Pedestrians were reported to be at fault in 45% of all pedestrian crashes.



Regional Overview



Serious Crash Types



High Risk Drivers and Behaviors



Special Vehicles and Roadway Users



Regional Crash Data Analysis Products



Technical Assistance & Services

BICYCLE CRASHES (2012-2016)

- Around 11% of bicycle crashes resulted in a fatality or serious injury, compared to an FSI rate of 2.6% across all crash types.



BICYCLE CRASHES BY SEVERITY, 2012 TO 2016

| YEAR | CRASH SEVERITY | | TOTAL CRASHES | FSI RATE |
|-------|----------------|----------------|---------------|----------|
| | Fatal | Serious Injury | | |
| 2012 | 3 | 35 | 298 | 13% |
| 2013 | 3 | 29 | 267 | 12% |
| 2014 | 3 | 26 | 275 | 11% |
| 2015 | 4 | 23 | 281 | 10% |
| 2016 | 2 | 25 | 296 | 9% |
| Total | 15 | 138 | 1,417 | 11% |

Notes

- FSI Rate = the percent of crashes that resulted in a fatal or serious injury.

REGIONAL CRASH DATA ANALYSIS PRODUCTS

REGIONAL CRASH DATA ANALYSIS PRODUCTS

- State of Safety Report
- Local Crash Fact Sheets
- High Crash Locations:
 - Top 100 Regional High Crash Intersections
 - Top 5 High Crash Intersections by Jurisdiction
 - Top Pedestrian & Bicycle High Crash Locations

Regional Overview



Serious Crash Types



High Risk Drivers and Behaviors



Special Vehicles and Roadway Users



Regional Crash Data Analysis Products



Technical Assistance & Services

STATE OF SAFETY REPORT (2012-2016)



STATE OF SAFETY REPORT (2012 - 2016)
AUGUST 2017

CRASH SEVERITY

| TOTAL CRASHES | Fatal | Serious Injury | Minor Injury | No Injury | Possible Injury | FSI RATE |
|---------------|-------|----------------|--------------|-----------|-----------------|----------|
| 2,254 | 48 | 573 | 6,034 | 45,794 | 9,808 | 1.0% |
| 1,715 | 42 | 882 | 4,403 | 23,023 | 4,585 | 2.4% |
| 1,121 | 11 | 202 | 1,573 | 21,404 | 1,911 | 0.8% |
| 1,128 | 137 | 894 | 3,003 | 15,036 | 2,058 | 4.0% |
| 1,064 | 9 | 102 | 616 | 14,437 | 530 | 0.7% |
| 1,019 | 27 | 375 | 2,148 | 8,438 | 1,763 | 3.7% |
| 914 | 2 | 16 | 69 | 6,134 | 198 | 0.3% |
| 810 | 0 | 9 | 121 | 4,048 | 135 | 0.2% |
| 727 | 27 | 134 | 542 | 2,843 | 580 | 4.1% |
| 615 | 5 | 61 | 372 | 2,321 | 267 | 2.8% |
| 588 | 88 | 450 | 1,268 | 223 | 655 | 13.8% |
| 511 | 1 | 15 | 72 | 1,330 | 102 | 1.1% |
| 437 | 37 | 129 | 318 | 894 | 278 | 11.5% |
| 375 | 15 | 138 | 713 | 243 | 307 | 10.8% |
| 318 | 18 | 87 | 250 | 318 | 133 | 13.0% |
| 258 | 7 | 5 | 25 | 159 | 19 | 5.8% |
| 210 | 0 | 1 | 2 | 9 | 2 | 7.1% |
| 150 | 0 | 1 | 1 | 2 | 2 | 16.7% |
| 100 | 0 | 0 | 0 | 0 | 0 | 100.0% |

CRASH TYPE TRENDS, 2012 - 2016

- Rear End & Sideswipe/passing
- Angle
- Fixed Object
- Left Turn
- Head On & Sideswipe/meeting
- All Crashes

TOTAL CRASH DENSITY (2012 TO 2016)

LEGEND

- Low Crash Density
- High Crash Density
- County Boundary
- MORPC Transportation Planning Area
- Rivers/Water
- Railroads
- Streets

LOCAL CRASH FACT SHEETS (2011-2015)

Regional Overview



Serious Crash Types



High Risk Drivers and Behaviors



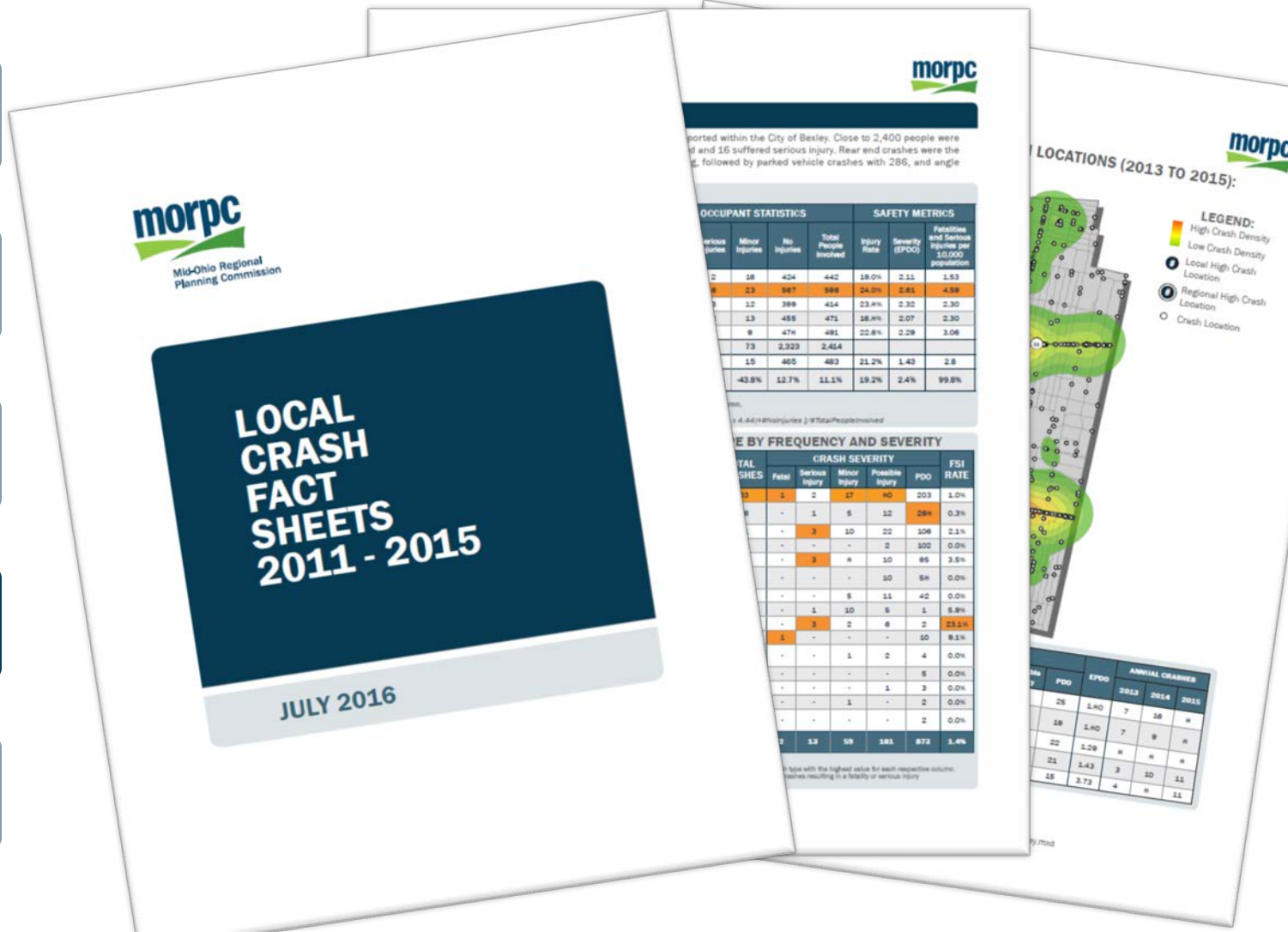
Special Vehicles and Roadway Users



Regional Crash Data Analysis Products



Technical Assistance & Services



TOP 100 HIGH CRASH INTERSECTIONS

Regional Overview



Serious Crash Types



High Risk Drivers and Behaviors



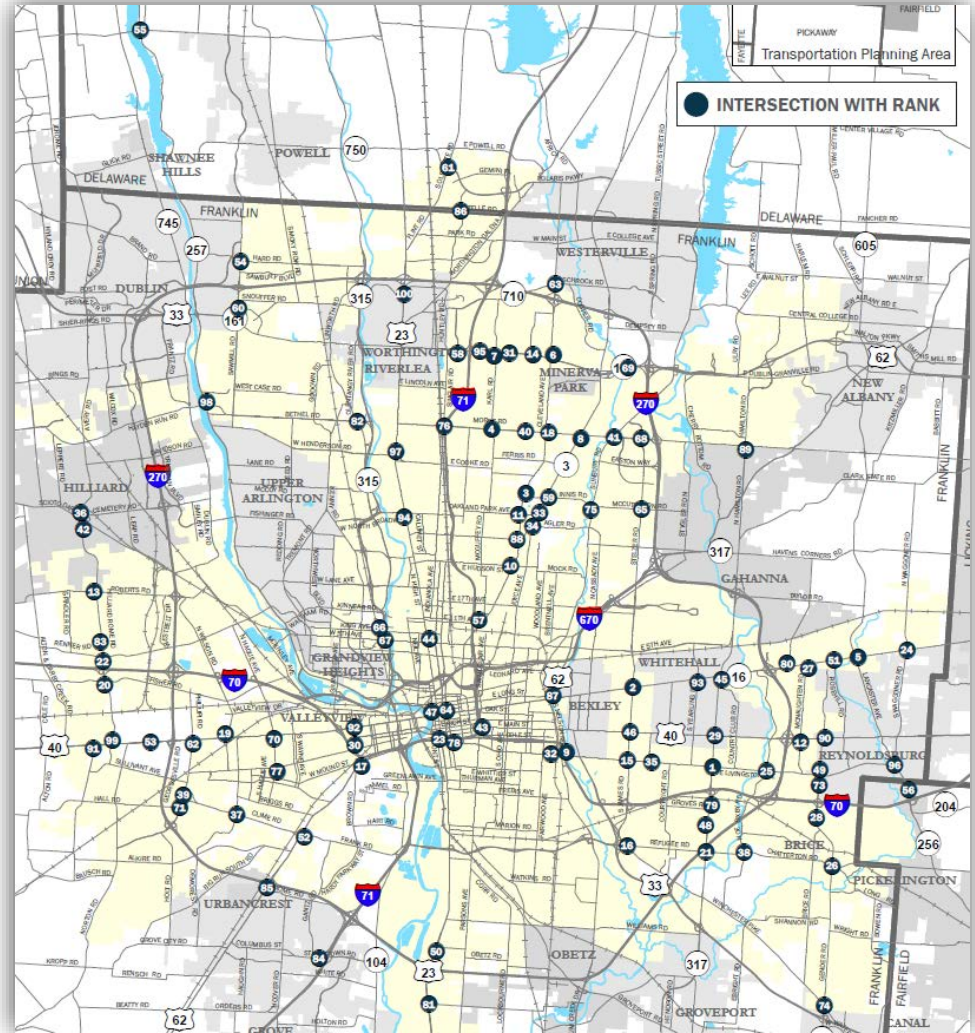
Special Vehicles and Roadway Users



Regional Crash Data Analysis Products



Technical Assistance & Services



TOP 5 HIGH CRASH INTERSECTIONS BY JURISDICTION



| JURISDICTION | RANK | LOCATION | TOTAL CRASHES (FREQ.) | CRASH SEVERITY | | | | | SEVERITY (EPDO) | ANNUAL CRASHES | | | TOP 100 |
|------------------|------|--|-----------------------|----------------|----------------|--------------|-----------------|-----|-----------------|----------------|------|------|---------|
| | | | | Fatal Injury | Serious Injury | Minor Injury | Possible Injury | PDO | | 2014 | 2015 | 2016 | |
| BEXLEY | 1 | E Main St @ College Ave | 30 | - | - | 4 | 3 | 23 | 2.08 | 16 | 8 | 6 | - |
| | 2 | E Main St / US 40 @ Euclaire Ave | 29 | - | 1 | - | 2 | 26 | 2.50 | 10 | 11 | 8 | - |
| | 3 | E Main St / US 40 @ Pleasant Ridge Ave | 25 | - | - | - | 4 | 21 | 1.55 | 8 | 8 | 9 | - |
| | 4 | E Broad St / SR 16 @ N Cassidy Ave | 24 | 1 | - | - | 6 | 17 | 3.38 | 8 | 11 | 5 | - |
| | 5 | E Main St / US 40 @ S Drexel Ave / US 40 | 22 | - | 1 | - | 5 | 16 | 3.44 | 9 | 8 | 5 | - |
| CANAL WINCHESTER | 1 | Gender Rd / SR 674 @ Winchester Blvd | 55 | - | - | 3 | 7 | 45 | 1.74 | 20 | 14 | 21 | - |
| | 2 | Gender Rd / SR 674 @ W Waterloo St | 32 | - | - | - | 5 | 27 | 1.54 | 8 | 10 | 14 | - |
| | 3 | Gender Rd / SR 674 @ Groveport Pike | 15 | - | - | 1 | 4 | 10 | 2.29 | 3 | 5 | 7 | - |
| | 4 | Gender Rd / SR 674 @ Canal St | 12 | - | - | 2 | 3 | 7 | 2.79 | 5 | 1 | 6 | - |
| | 5 | Gender Rd @ W Walnut St | 8 | - | - | 1 | 2 | 5 | 2.55 | 3 | 4 | 1 | - |
| COLUMBUS | 1 | Cleveland Ave @ Morse Rd | 284 | 1 | 2 | 32 | 25 | 224 | 2.31 | 106 | 90 | 88 | X |
| | 2 | Cleveland Ave @ Dublin Granville Rd / SR 161 | 213 | - | 3 | 27 | 32 | 151 | 2.74 | 58 | 79 | 76 | X |
| | 3 | Brice Rd @ Scarborough Blvd / Tussing Rd | 184 | 1 | - | 16 | 25 | 142 | 2.15 | 52 | 80 | 52 | X |
| | 4 | E Livingston Ave @ Hamilton Rd / SR 317 | 180 | 1 | 4 | 29 | 21 | 125 | 3.98 | 51 | 59 | 70 | X |
| | 5 | Morse Rd @ Westerville Rd / SR 3 | 172 | - | 5 | 15 | 19 | 133 | 2.93 | 47 | 52 | 73 | X |
| DELAWARE CITY | 1 | E William St / US 36 @ Sandusky St | 78 | - | 2 | 2 | 5 | 69 | 2.30 | 28 | 34 | 16 | X |
| | 2 | Columbus Pike / US 23 @ Cottswold Dr | 33 | - | 1 | - | 7 | 25 | 2.84 | 16 | 9 | 8 | - |
| | 3 | W Central Ave / SR 37 @ N Sandusky St | 33 | - | 1 | 1 | 10 | 21 | 3.32 | 9 | 7 | 17 | - |
| | 4 | E William St / US 36 @ N Henry St | 32 | - | 1 | 5 | 3 | 23 | 3.33 | 8 | 14 | 10 | - |
| | 5 | W William St / US 36 @ Liberty St | 30 | - | 2 | 1 | 4 | 23 | 4.08 | 9 | 10 | 11 | - |
| DUBLIN | 1 | E Bridge St @ Riverside Dr / US 33 | 80 | - | - | 4 | 5 | 71 | 1.49 | 17 | 10 | 53 | - |
| | 2 | Bridge St / US 33 @ Frantz Rd / Post Rd | 71 | - | 2 | 3 | 9 | 57 | 2.70 | 30 | 15 | 26 | - |
| | 3 | Avery-Muirfield Dr @ Perimeter Dr | 59 | - | - | 6 | 10 | 43 | 2.15 | 17 | 22 | 20 | - |
| | 4 | Avery-Muirfield Dr @ Perimeter Loop Rd | 49 | - | 3 | 2 | 11 | 33 | 4.24 | 14 | 19 | 16 | - |
| | 5 | Riverside Dr / SR 257 @ Emerald Pkwy | 39 | - | 4 | 2 | 8 | 25 | 5.74 | 9 | 14 | 16 | - |
| GAHANNA | 1 | Mill St / US 62 @ Stygler Rd | 78 | - | - | 4 | 6 | 68 | 1.55 | 26 | 21 | 31 | - |
| | 2 | US 62 @ Olde Ridenour Rd | 55 | - | - | 4 | 7 | 44 | 1.84 | 20 | 13 | 22 | - |
| | 3 | Hamilton Rd / SR 317 @ Havens Corners Rd | 52 | - | - | - | 9 | 43 | 1.60 | 23 | 20 | 9 | - |
| | 4 | Agler Rd @ Stygler Rd N | 45 | - | - | 2 | 3 | 40 | 1.48 | 18 | 12 | 15 | - |
| | 5 | E Johnstown Rd / US 62 @ N Hamilton Rd | 44 | - | 1 | 3 | 2 | 38 | 2.37 | 16 | 13 | 15 | - |

TOP PEDESTRIAN HIGH CRASH CLUSTERS

Regional Overview



Serious Crash Types



High Risk Drivers and Behaviors



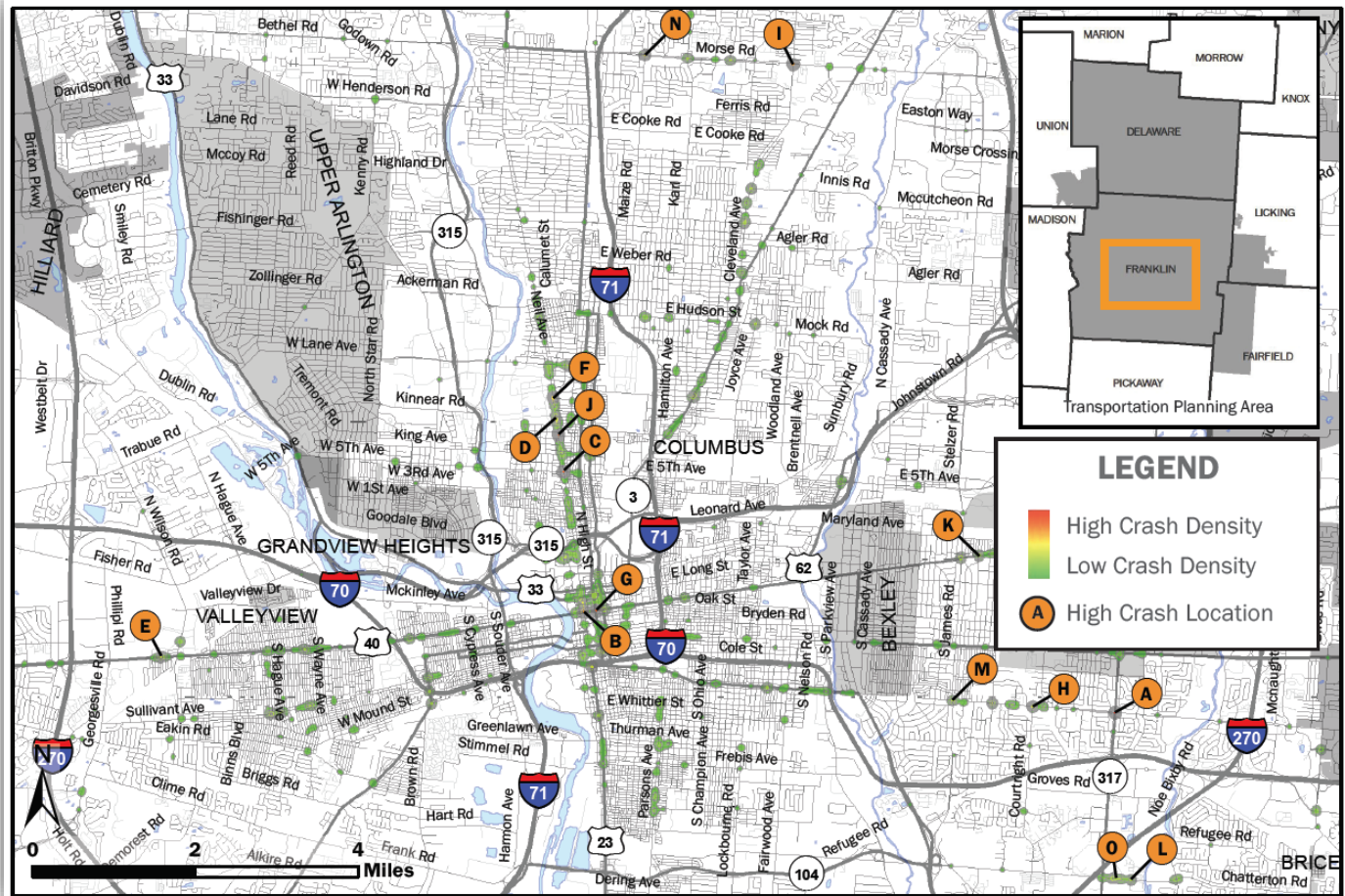
Special Vehicles and Roadway Users



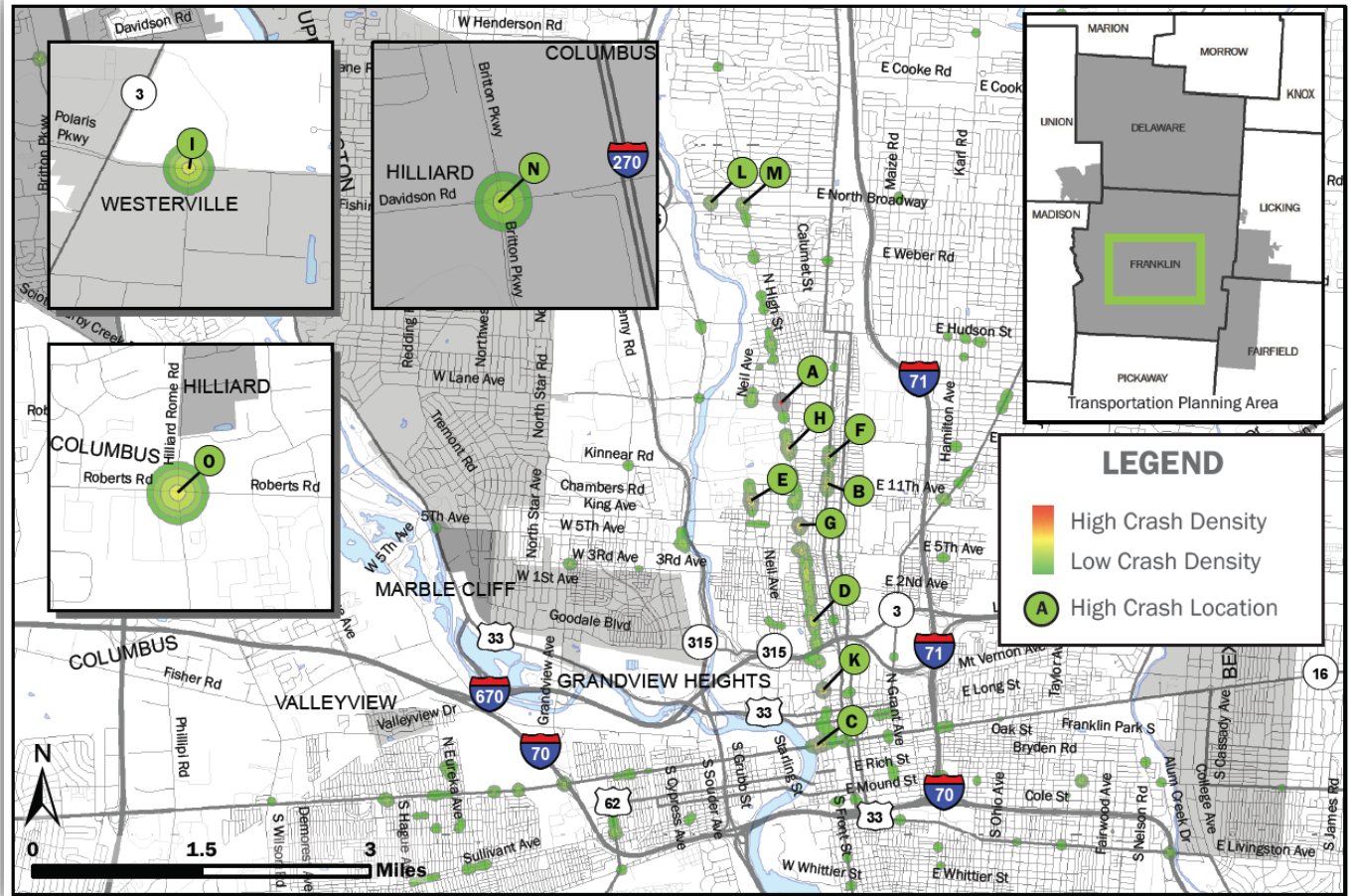
Regional Crash Data Analysis Products



Technical Assistance & Services



TOP BICYCLE HIGH CRASH CLUSTERS



Regional Overview



Serious Crash Types



High Risk Drivers and Behaviors



Special Vehicles and Roadway Users



Regional Crash Data Analysis Products



Technical Assistance & Services



HOME » PROGRAMS & SERVICES » **TRANSPORTATION SAFETY**

Transportation Safety

ADMINISTRATIVE DATA SAFETY TRANSPORTATION

Every year around 100 individuals lose their lives in crashes on Central Ohio's roadways, and another 500 people suffer serious life changing injuries. In partnership with many of our state and local partners we are actively working to address the safety concerns on our roadways to save lives and improve the overall quality life for all Central Ohio residents and visitors.

☆ ADD TO MY FAVES

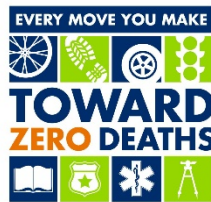
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PROGRAMS & SERVICES
TOOLS & RESOURCES

<http://www.morpc.org/program-service/transportation-safety/>



TECHNICAL ASSISTANCE & SERVICES

MORPC'S LOCAL SAFETY INITIATIVE:



Safety Study Assistance

Road Safety Audits

Systematic Safety Improvements

Safety Study Assistance

Road Safety Audits

Systematic Safety Improvements

High/Medium-Cost Spot Safety Treatments

Low/Medium-Cost Spot Safety Treatments

Low-Cost Risk-Based Treatments



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