



Traffic Safety Programs: Changing Traffic Safety Culture

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Presented at the Annual Mandatory Grantee Meeting



Objectives

- **Highway Safety Programs**
- **Highway Safety Performance Measures**
- **Accomplishments**
- **Challenges**
- **Strategies**
- **Project Review and Selection Criteria**

Moving Ahead for Progress in the 21st Century Act (MAP-21)

- Section 402 – **State & Community** Formula Grant
- Section 405b – **Occupant Protection** Incentive Grant
- Section 405c – **Traffic Safety Information Systems** Incentive Grant
- Section 408 – **Traffic Safety Information Systems** Incentive Grant
- Section 405d – **Impaired Driving** Incentive Grant
- Section 405f – **Motorcycle Safety** Incentive Grant

Illinois Highway Safety Program Areas

- **Occupant Protection**
- **Impaired Driving**
- **Speed Control**
- **Traffic Records**
- **Emergency Medical Services**
- **Pedestrian**
- **Pedalcycle**
- **Motorcycle Safety**
- **Large Truck**
- **Police Traffic Services**
- **Distracted Driving (Cell Phone Use and Texting)**

We are required to identify those programs most effective in reducing crashes, injuries, and deaths, and eligible use of highway safety funds awarded to the State of Illinois

Highway Safety:

Consensus Performance Measures

Core Measures

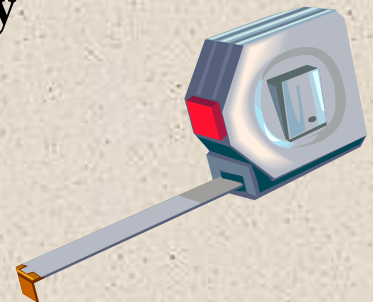
- Overall fatalities
- Serious injuries
- Fatalities/VMT
- Unrestrained fatalities
- .08+ fatalities
- Speeding fatalities
- Motorcycle fatalities
- Unhelmeted fatalities
- <21 year drivers in fatalities
- Pedestrian fatalities
- Observed Belt Use

Activity Measures

- Belt citations
- Speeding citations
- DWI arrests

Developmental Measures

- Injuries
- Attitudes/Awareness
- Speed monitoring
- Enforcement Activity

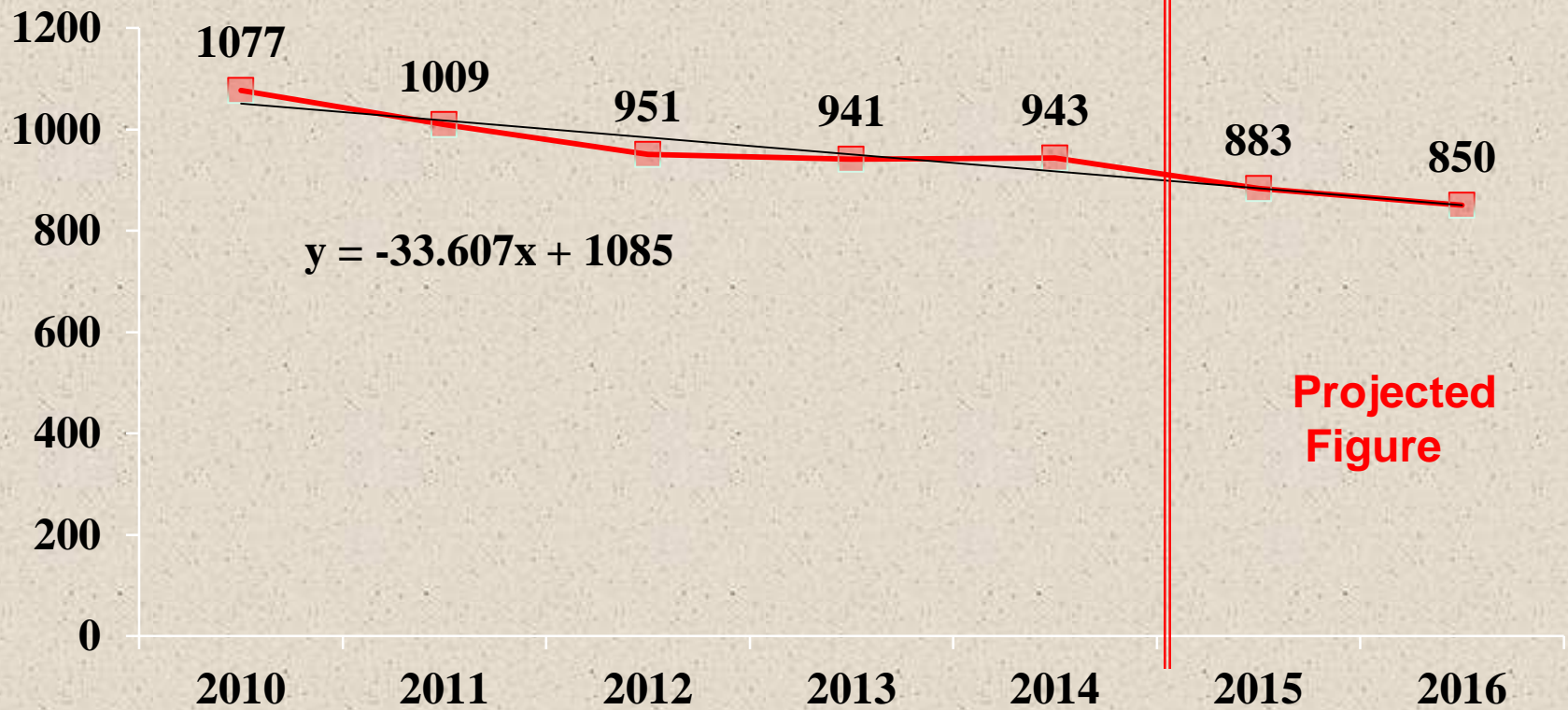


CORE PERFORMANCE MEASURES

| Selected Core Measures | Actual Data | | | | | Projected Figures (Targets) | | | | | | | | |
|-------------------------|-------------|--------|--------|--------|--------|-----------------------------|--------|--------|--------|-------|--------|--------|-------|--------|
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | | | 2015 | | | 2016 | | |
| | | | | | | Target | L 70% | U 70% | Target | L 70% | U 70% | Target | L 70% | U 70% |
| Total Fatalities | 911 | 927 | 918 | 956 | 991 | 924* | N/A | | N/A | | | N/A | | |
| AVG. | 1,164 | 1,077 | 1,009 | 951 | 941 | 943 | N/A | | 883 | 839 | 927 | 850 | 799 | 900 |
| Severe Injuries | 12,997 | 12,638 | 11,942 | 12,401 | 12,299 | N/A | | | N/A | | | N/A | | |
| AVG. | 15,607 | 14,488 | 13,379 | 12,686 | 12,455 | 11,292 | 10,767 | 11,816 | 10,481 | 9,876 | 11,087 | 9,671 | 8,975 | 10,367 |
| Total Fatality Rate | 0.86 | 0.88 | 0.89 | 0.91 | 0.94 | N/A | | | N/A | | | N/A | | |
| AVG. | 1.088 | 1.01 | 0.954 | 0.904 | 0.896 | 0.8 | 0.8 | 0.9 | 0.8 | 0.7 | 0.8 | 0.7 | 0.7 | 0.8 |
| Rural Fatality Rate | 1.43 | 1.4 | 1.51 | 1.5 | 1.61 | N/A | | | N/A | | | N/A | | |
| AVG. | 1.682 | 1.58 | 1.542 | 1.486 | 1.49 | 1.4 | 1.4 | 1.5 | 1.4 | 1.3 | 1.4 | 1.3 | 1.3 | 1.4 |
| Urban Fatality Rate | 0.67 | 0.7 | 0.68 | 0.72 | 0.73 | N/A | | | N/A | | | N/A | | |
| AVG. | 0.874 | 0.812 | 0.752 | 0.708 | 0.7 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.6 |
| Severe Injury Rate | 14.61 | 13.62 | 12.66 | 12.08 | 11.87 | N/A | | | N/A | | | N/A | | |
| AVG. | 12.29 | 11.95 | 11.55 | 11.87 | 11.66 | 10.9 | 10.4 | 11.3 | 10.2 | 9.6 | 10.7 | 9.4 | 8.8 | 10.1 |
| Unrestrained Occupants | 265 | 261 | 268 | 279 | 276 | N/A | | | N/A | | | N/A | | |
| AVG. | 380.4 | 343 | 305.4 | 282.2 | 269.8 | 231.6 | 216.2 | 246.9 | 203.4 | 185.6 | 221.1 | 175.2 | 154.8 | 195.5 |
| Impaired | 313 | 292 | 278 | 322 | 322 | N/A | | | N/A | | | N/A | | |
| AVG. | 402.4 | 369.2 | 335.6 | 312.2 | 305.4 | 269.7 | 254.3 | 285.0 | 244.6 | 226.9 | 262.3 | 219.5 | 199.1 | 239.8 |
| Speed | 325 | 438 | 441 | 387 | 421 | N/A | | | N/A | | | N/A | | |
| AVG. | 463.6 | 445.6 | 422.6 | 395.4 | 402.4 | 374.1 | 358.5 | 389.7 | 356.9 | 338.9 | 374.9 | 339.6 | 318.9 | 360.3 |
| Motorcyclist Fatalities | 130 | 131 | 145 | 148 | 152 | N/A | | | N/A | | | N/A | | |
| AVG. | 142.4 | 137 | 139.6 | 137.8 | 141.2 | 139.1 | 135.2 | 143.0 | 139.0 | 134.5 | 143.5 | 138.8 | 133.6 | 144.0 |
| Unhelmeted | 99 | 106 | 108 | 115 | 113 | N/A | | | N/A | | | N/A | | |
| AVG. | 107.8 | 105.2 | 106.2 | 105 | 108.2 | 106.7 | 104.1 | 109.2 | 106.7 | 103.8 | 109.7 | 106.8 | 103.4 | 110.2 |
| Young Driver | 121 | 146 | 126 | 118 | 132 | N/A | | | N/A | | | N/A | | |
| AVG. | 201.8 | 181.2 | 159.2 | 132 | 128.6 | 101.9 | 91.6 | 112.1 | 82.3 | 70.5 | 94.2 | 62.8 | 49.2 | 76.4 |
| Pedestrian | 112 | 115 | 134 | 138 | 125 | N/A | | | N/A | | | N/A | | |
| AVG. | 144.4 | 134.4 | 133.4 | 126.8 | 124.8 | 118.7 | 115.0 | 122.4 | 114.0 | 109.7 | 118.3 | 109.4 | 104.4 | 114.3 |
| Pedalcycle | 19 | 24 | 27 | 29 | 30 | N/A | | | N/A | | | N/A | | |
| AVG. | 21.8 | 22.4 | 23 | 25.2 | 25.8 | 26.9 | 26.1 | 27.6 | 28.0 | 27.1 | 28.8 | 29.0 | 28.0 | 30.0 |
| Belt Usage Rate | 91.7 | 92.6 | 92.9 | 93.6 | 93.7 | 94.1* | N/A | | 95.2* | | | N/A | | |
| AVG. | 89.26 | 90.58 | 91.56 | 92.26 | 92.9 | 93.38 | N/A | | 94.9 | N/A | | 95.8 | 95.3 | 96.3 |

*Actual Values since 2014 were available

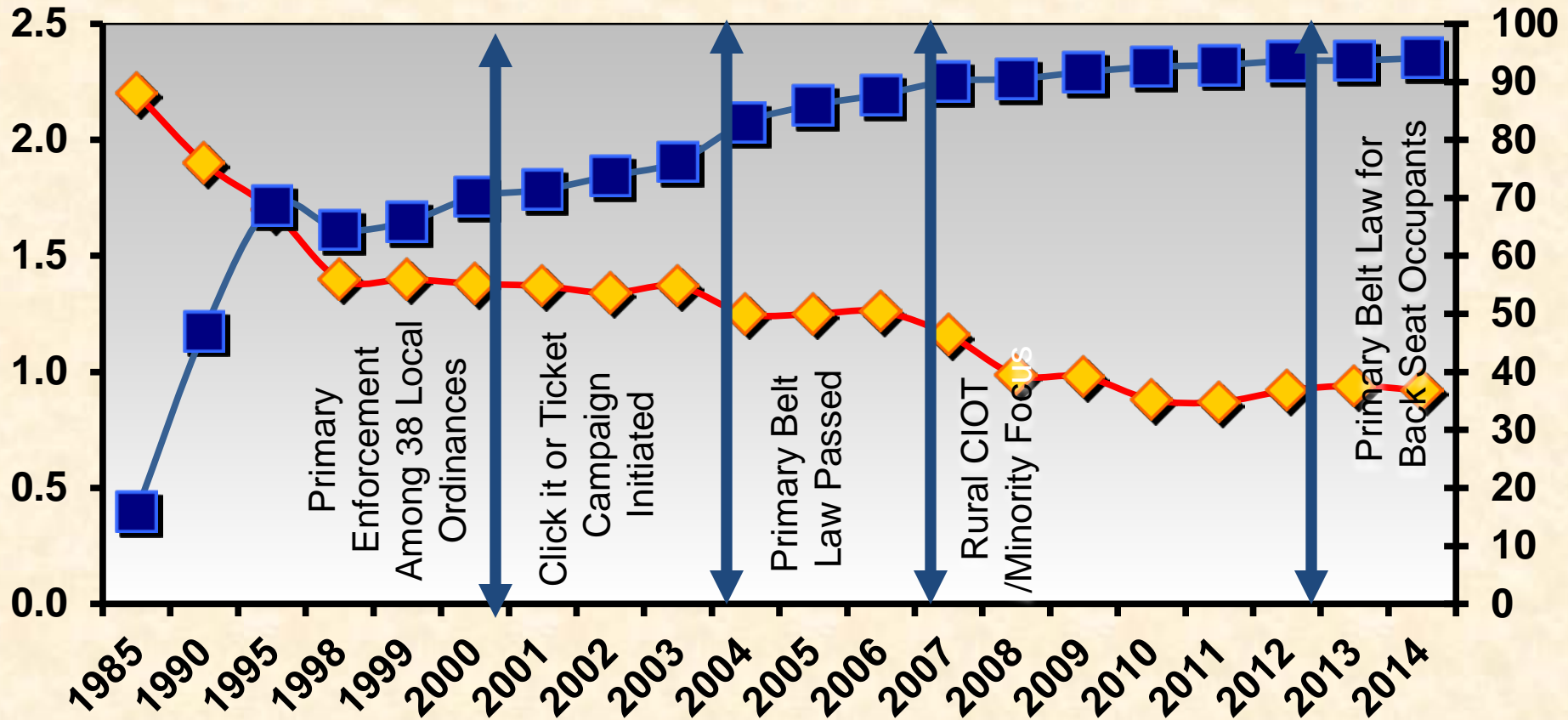
Total Number of Traffic Fatalities



Major Accomplishments

- **Reduction in total Fatalities and Injuries**
- **High Belt Use (95.2%)**
- **Higher Message Awareness (Over 90%)**
- **Improvement in Alcohol-Related Fatalities (lower in absolute number)**
- **Establishment of Sustained Enforcement Activities**
- **Improvement in crash data reporting (Timeliness, Accessibility, and Data Integration)**

Historical Data on Fatality and Safety Belt Usage Rates in Illinois



◆ Fatality Rate ■ Safety Belt Rate

Fatalities and Fatality Rate, by Year



National Statistics on Total Traffic Fatalities in 2015

According to the National Safety Council (NSC), traffic fatalities increased **by 14 percent** nationally in the first six months of this year and injuries were up by a third, according to data gathered by the National Safety Council.

The Council claims the main reasons for an increase in fatalities are:

1. Improved economy
2. low gas prices
3. low unemployment rates

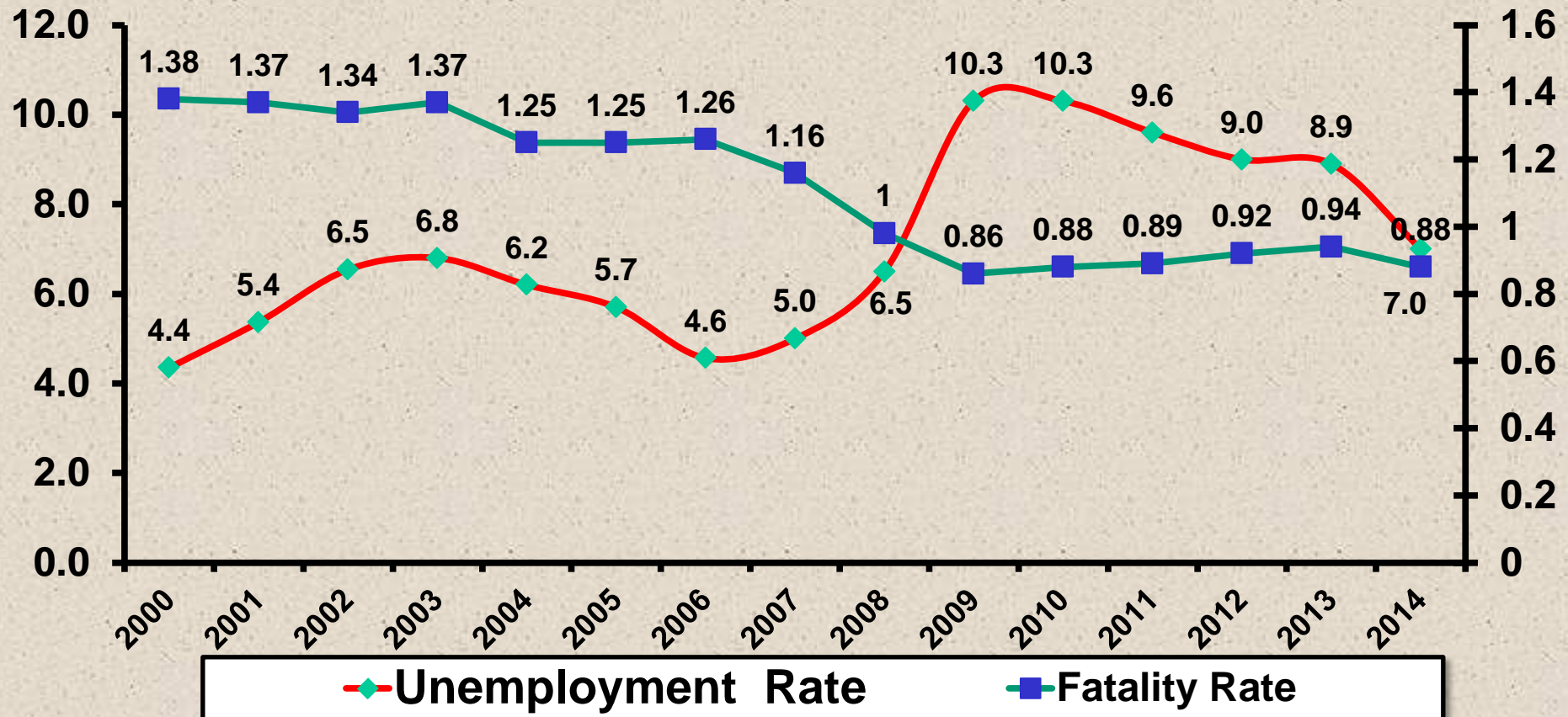
Other factors that contribute to high fatal and injury crashes are:

1. Temperature and nice weather
2. Speed (increase in speed limit)
3. Cell Phone use and texting
4. Alcohol/Drug

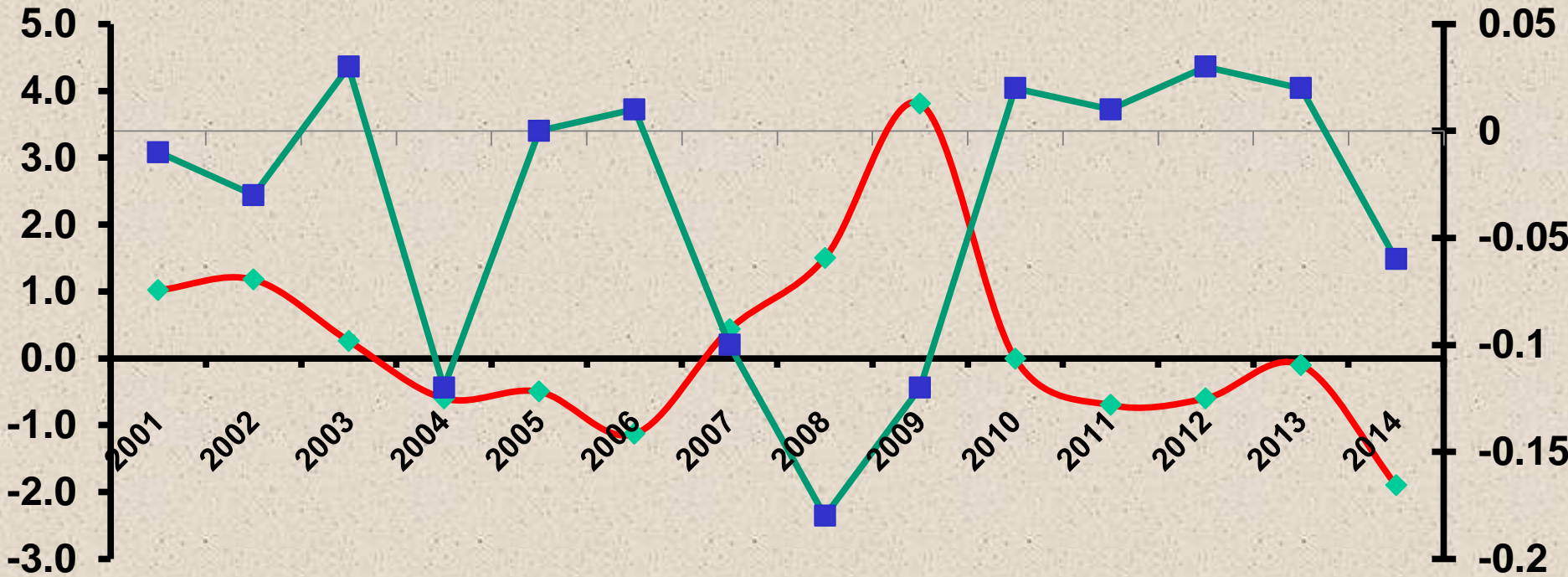
U.S. All Grades All Formulations Retail Gasoline Prices (Dollars per Gallon)

| Year | Jan | Feb | March | April | May | June |
|------|--------|--------|--------|--------|--------|--------|
| 2012 | \$3.44 | \$3.64 | \$3.91 | \$3.96 | \$3.79 | \$3.60 |
| 2013 | \$3.39 | \$3.74 | \$3.78 | \$3.64 | \$3.68 | \$3.69 |
| 2014 | \$3.39 | \$3.43 | \$3.61 | \$3.74 | \$3.75 | \$3.77 |
| 2015 | \$2.21 | \$2.30 | \$2.55 | \$2.56 | \$2.80 | \$2.89 |

Fatality and Unemployment Rates by Year



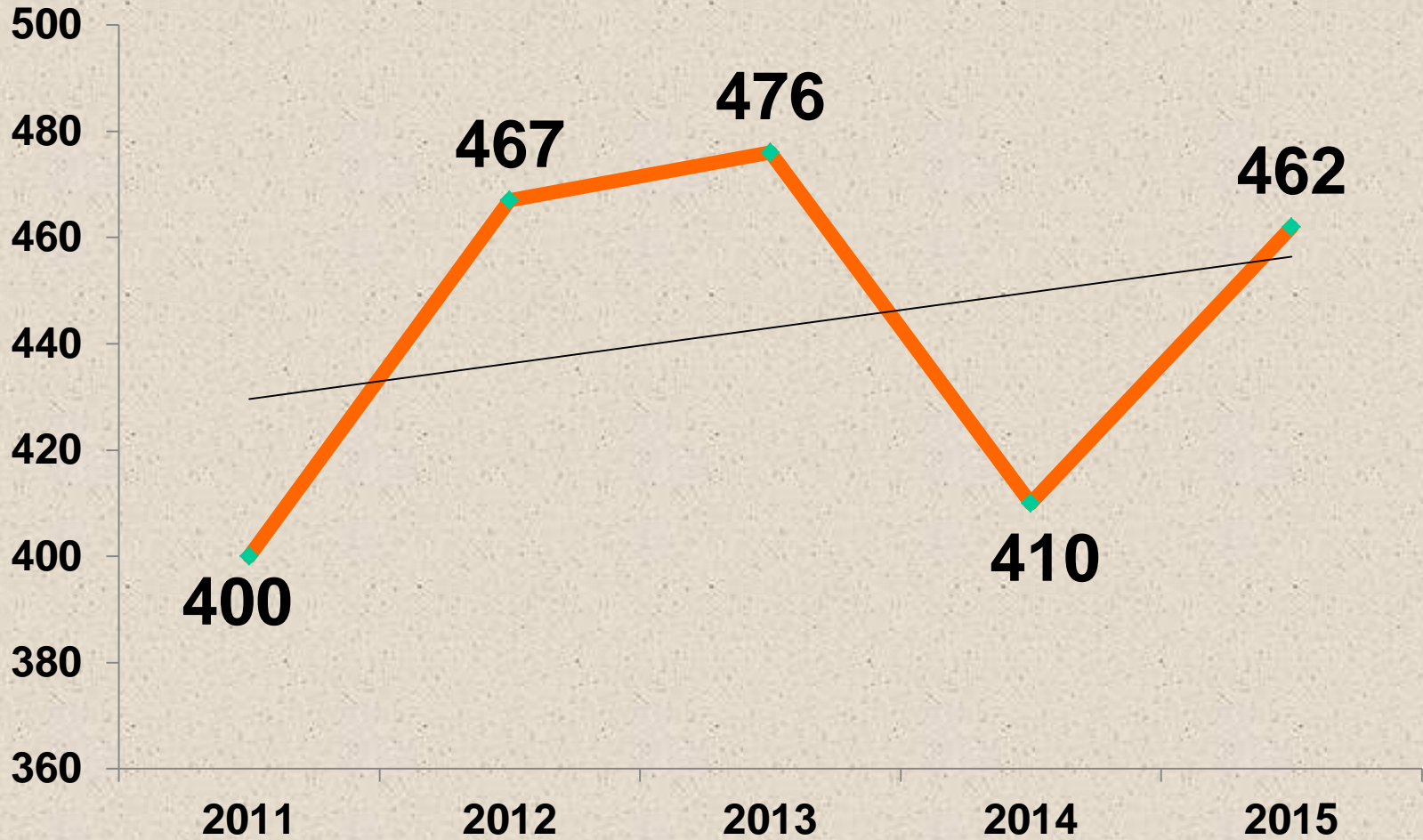
Year to Year Percent Changes in Illinois Fatality and Unemployment Rates by Year



◆ Unemployment Rate

■ Fatality Rate

Illinois Traffic Fatalities During the First Six Months in in 2015



Challenges (Occupant Protection)

- **Lower belted occupant fatalities**
 - **Low usage rate among African Americans and Hispanics**
 - **Low usage rate among young male drivers**
 - **Low usage rate at night among those who fatally injured (62.7%)**
 - **Lower usage rate among back seat occupants**

Total Fatalities, Injuries, and A-Injuries for Passengers of Passenger Cars, Pickup Trucks, Vans, and SUVs (2010 - 2013)

| | Fatalities | Injuries | A Injuries | % Fatalities | % Injuries | % A Injuries |
|---------------------------------|-------------------|-----------------|-------------------|---------------------|-------------------|---------------------|
| Drivers | 1,776 | 201,442 | 26,871 | 72.0% | 69.9% | 70.4% |
| Front seat Passengers | 415 | 52,727 | 7,146 | 16.8% | 18.3% | 18.7% |
| Backseat Passengers | 207 | 30,431 | 3,615 | 8.4% | 10.6% | 9.5% |
| Enclosed and Exposed Passengers | 67 | 3,393 | 523 | 2.7% | 1.2% | 1.4% |
| UNK./N/A | 0 | 150 | 18 | 0.0% | 0.1% | 0.0% |
| Grand Total | 2,465 | 288,143 | 38,173 | 100.0% | 100.0% | 100.0% |

Strategy to Improve Usage Rate and Reduce Rear Seat Occupant Fatalities and Injuries

- **Passing Primary Rear Seat Law on January 1, 2012**
- **High Visibility Enforcement focusing on Back Seat**
 - **Increase Seat Belt Zone Enforcement**
 - **Expand Nighttime Belt Enforcement**
 - **Continue/Expand Roadside Safety Checks**
 - **Multiple Enforcement Waves**

Comparison of Percent Safety Belt Usage Rates Among Occupants of Passenger Cars in Illinois in 2013 and 2014

| | Driver | | | Front Seat Passengers | | | Rear Seat Occupants | | |
|------------------------------|-----------------|-----------------|----------|-----------------------|-----------------|----------|---------------------|-----------------|----------|
| | Belt Use (2013) | Belt Use (2014) | % Change | Belt Use (2013) | Belt Use (2014) | % Change | Belt Use (2013) | Belt Use (2014) | % Change |
| Total | 93.8% | 95.62% | 1.82% | 90.00% | 92.66% | 2.66% | 77.40% | 84.00% | 6.60% |
| Chicago | 90.1% | 90.63% | 0.53% | 81.90% | 84.35% | 2.45% | 61.20% | 70.63% | 9.43% |
| Cook | 93.2% | 96.00% | 2.80% | 89.30% | 93.54% | 4.24% | 77.00% | 79.40% | 2.40% |
| Upstate¹ | 94.4% | 95.40% | 1.00% | 89.60% | 93.00% | 3.40% | 82.40% | 85.64% | 3.24% |
| Downstate² | 95.0% | 98.00% | 3.00% | 95.00% | 96.20% | 1.20% | 76.80% | 92.00% | 15.20% |

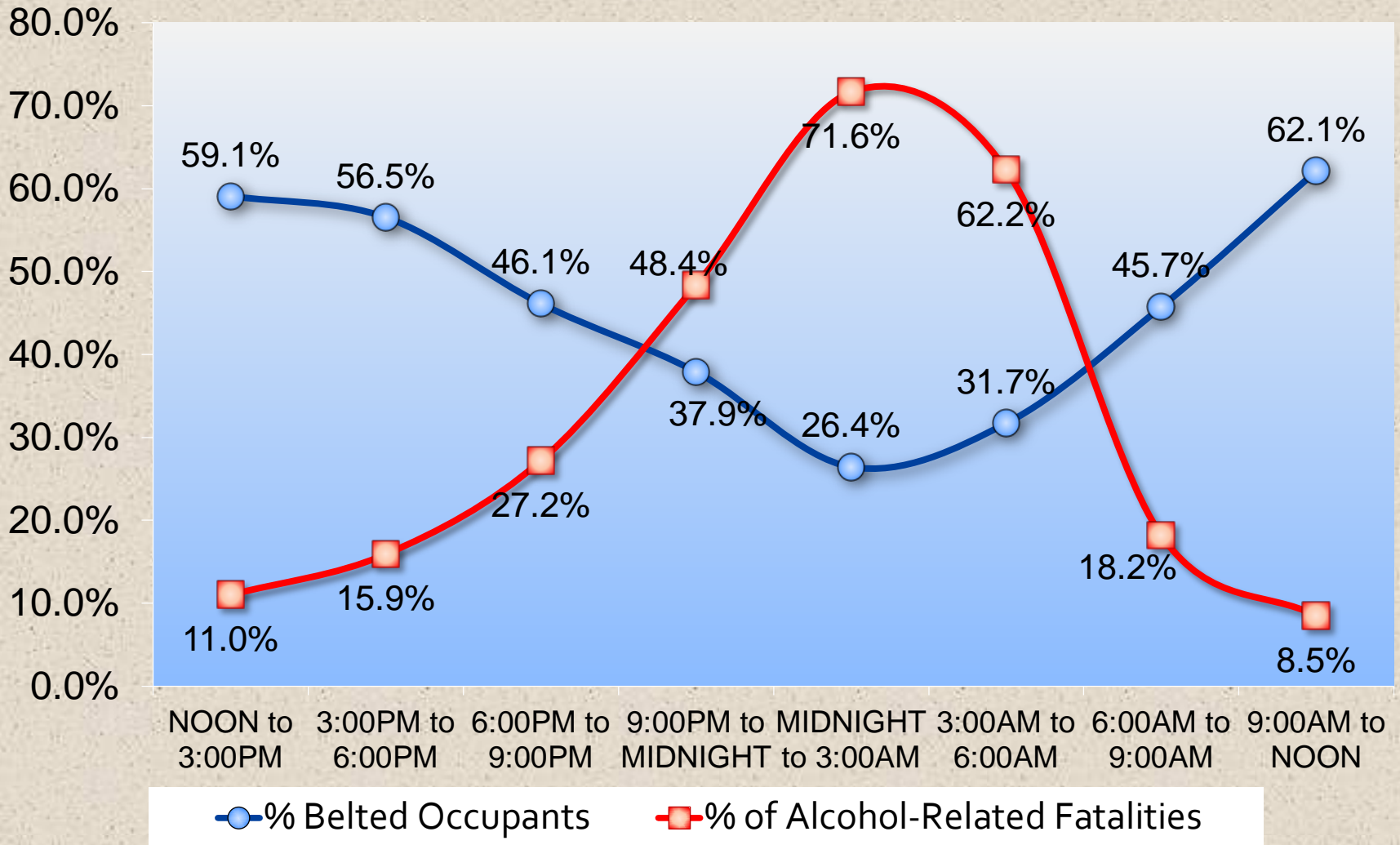
1. Upstate region includes the following counties: DuPage, Kane, Lake, McHenry and Winnebago

2. Downstate Region includes the following counties: Champaign, Bureau, Effingham, Rock Island, Madison and St. Clair

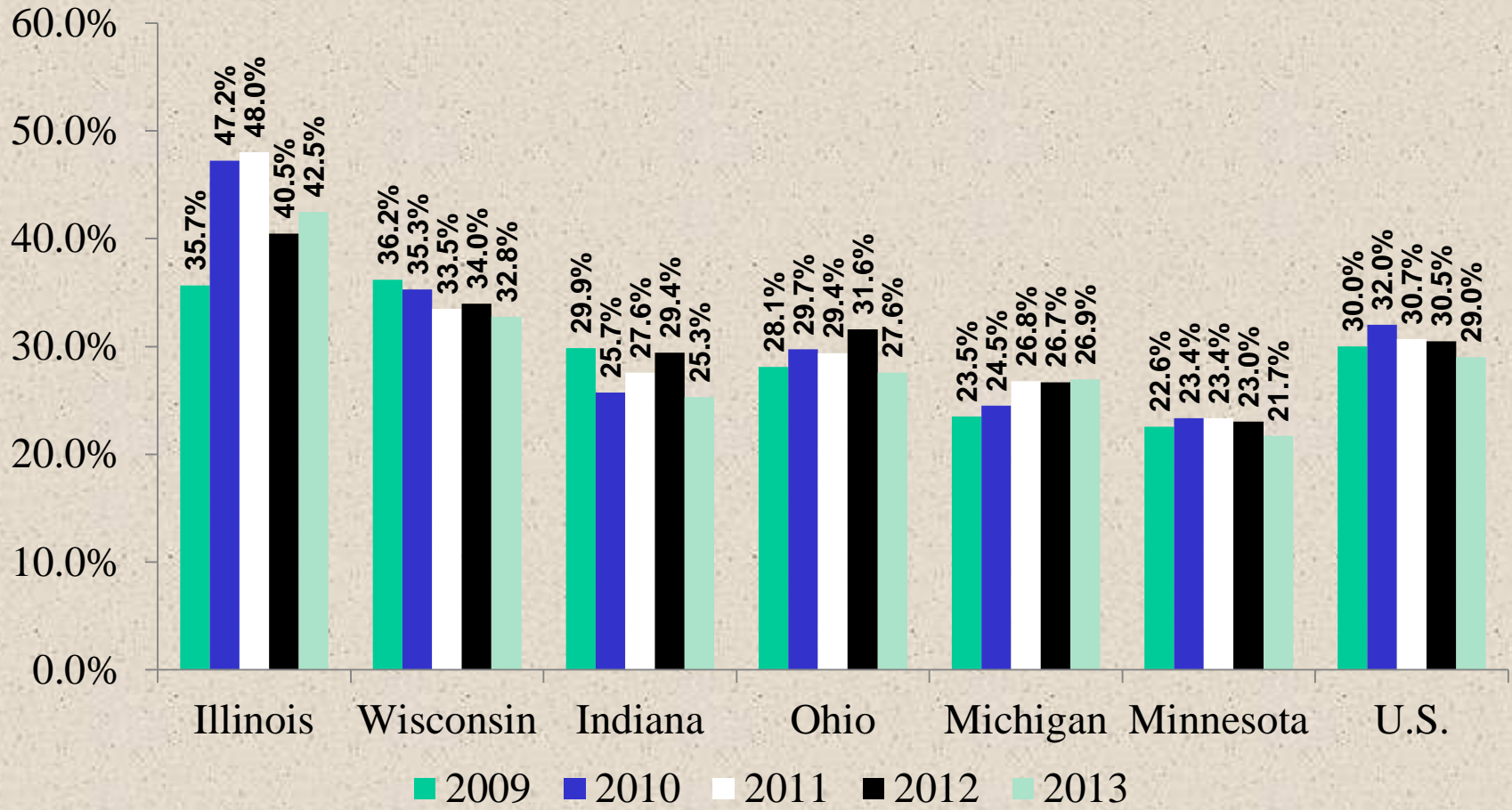
Challenge (Alcohol/Speed)

- **Higher % alcohol-related fatalities**
- **Lower rate of state and local agency participation during alcohol campaigns**
- **Accurate Problem IDs for the State and local agencies to select high crash locations to patrol**
- **High % speed related fatalities**
- **Accurate and reasonable coding of alcohol-related and speed related fatalities**

Percent Alcohol Related Fatalities and Percent Belted Occupant Fatalities by Time of Day in Illinois in 2009-2013



Percent Speed Related Fatalities Among Great Lakes States and US in 2009 - 2013



Strategies to Combat Nighttime Belt Use and Alcohol Problems

- In 2007, we started focusing on nighttime enforcement by asking the local and state law enforcement agencies to shift at least 50% of their enforcement activities from daytime to nighttime.
- Since 2011, all our enforcement grantees were required to conduct enforcement activities during major belt and alcohol campaigns at night.
- Nighttime hours are 9:00PM – 6:00AM

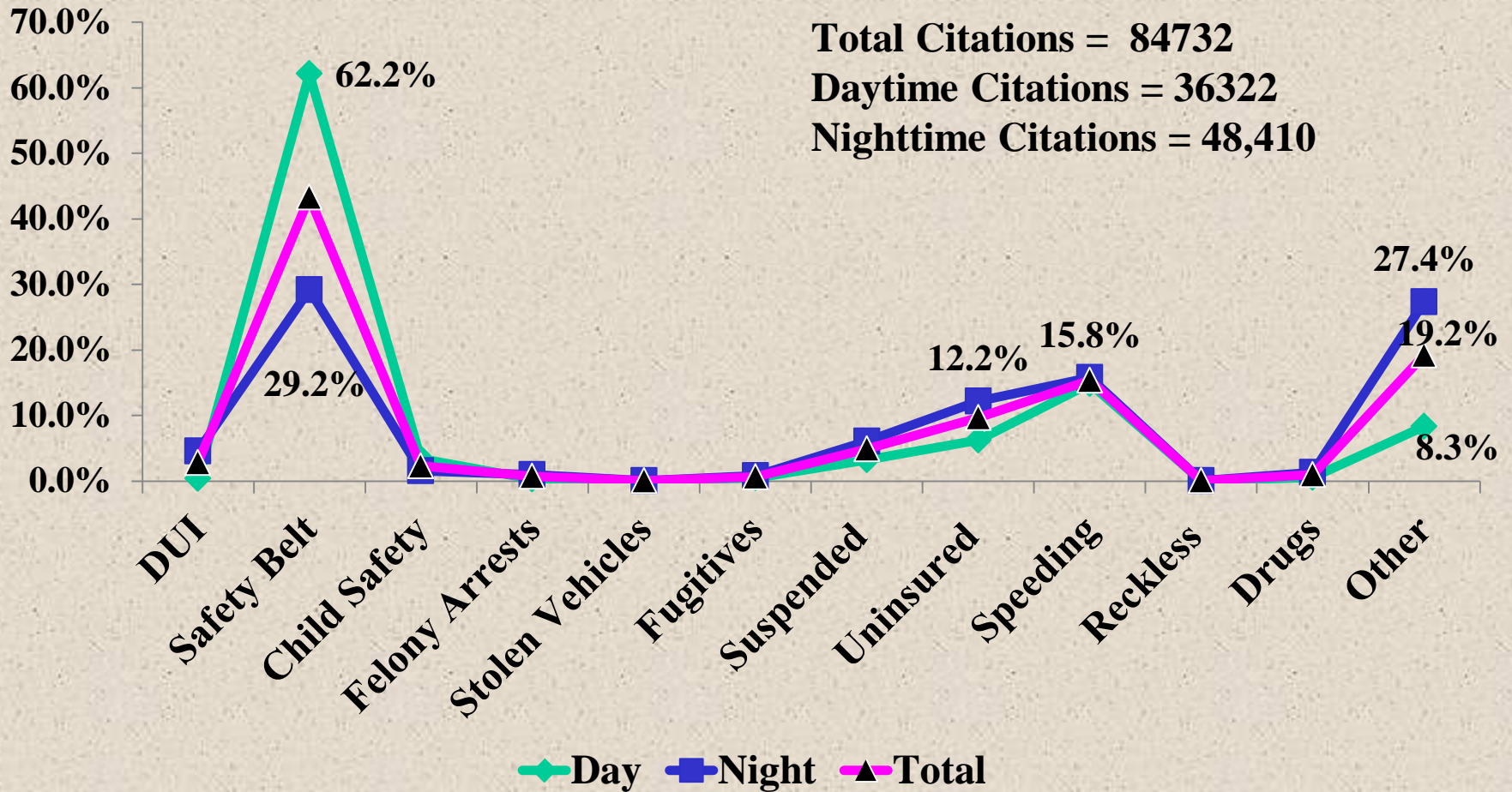
Major Enforcement Campaigns in Illinois

| | |
|---------------------------------|----------------------------------|
| Thanksgiving (Belt) | Memorial Day (Belt) |
| Christmas (Alcohol) | July 4th (Alcohol) |
| Super Bowl (Belt/Alcohol) | Labor Day (Alcohol) |
| St. Patrick's (Belt/Alcohol) | Unassigned (locals) ^o |
| Cinco De Mayo (Belt/Alcohol) | Unassigned (ISP) [†] |

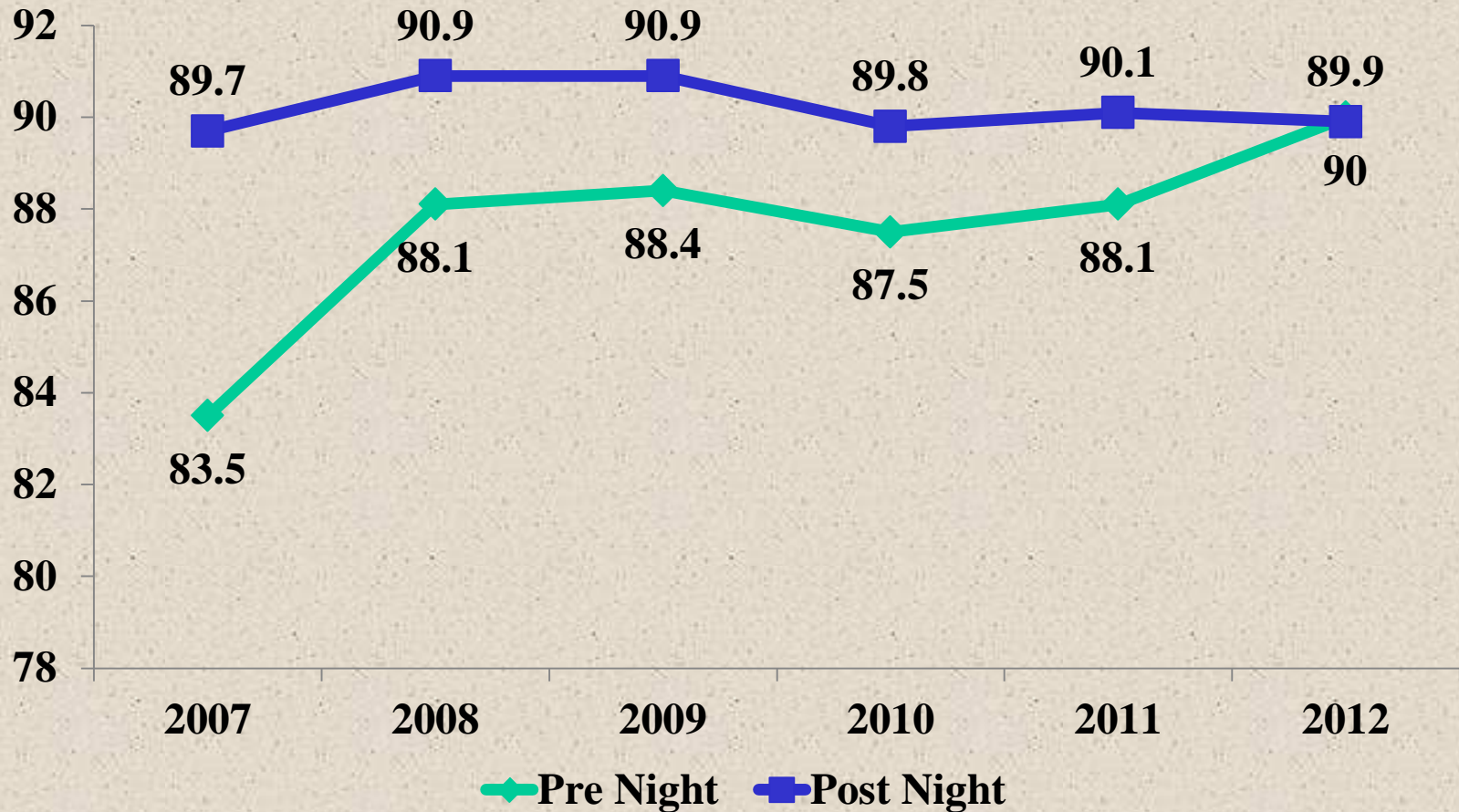
[†] The hours and citations for the unassigned enforcement could not be broken down by daytime and nighttime enforcement activities.

^o Unassigned (locals) indicates local enforcement agencies conducted additional enforcement outside the required holiday campaigns.

Percent Distribution of Citations During the Three Major Campaigns (Memorial, Labor Day and Thanksgiving)



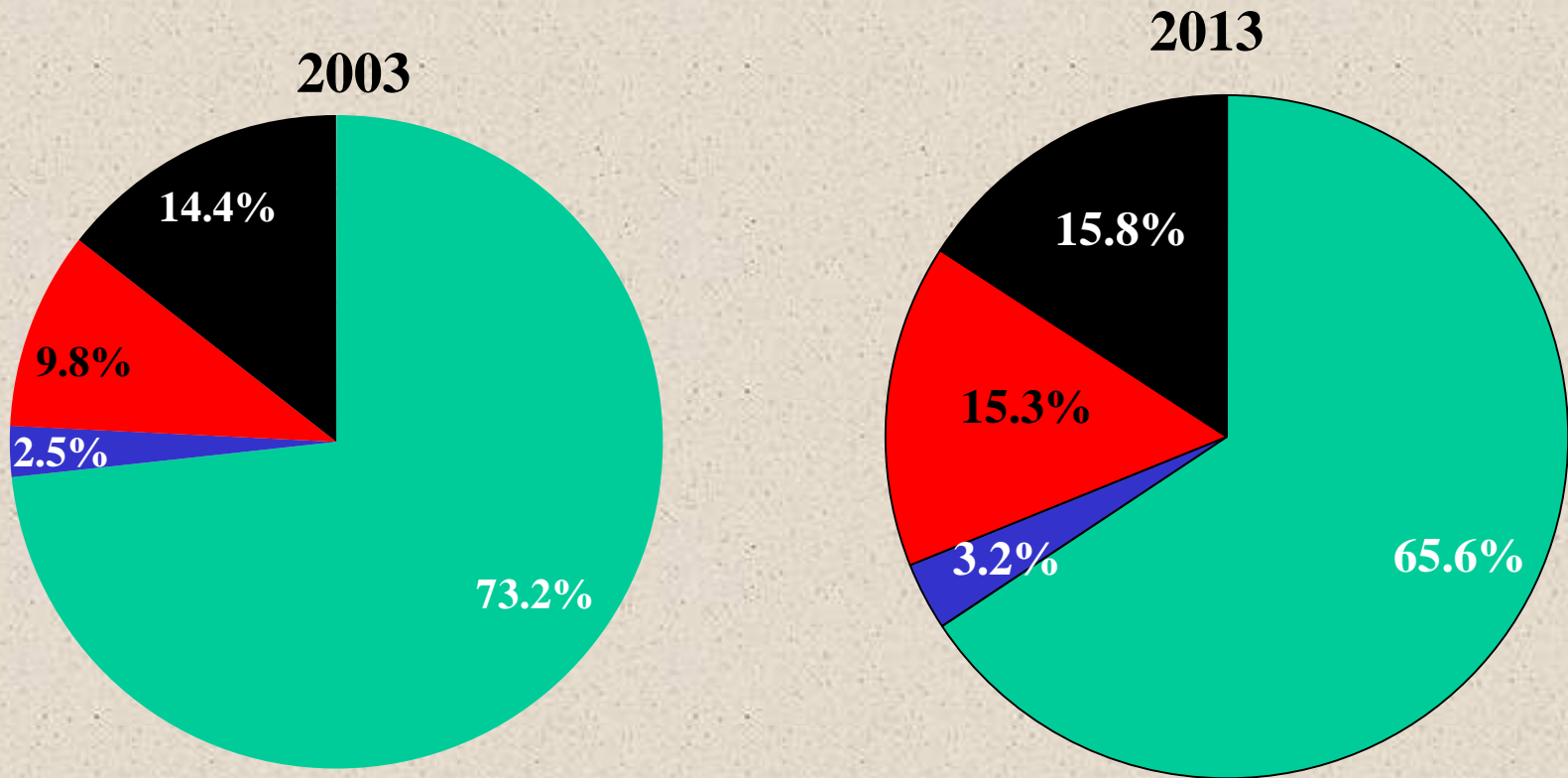
Nighttime Pre and Post Safety Belt Usage Rates



Challenge (Non Occupants/Others)

- **Pedestrian/Pedal-cycle**
- **Motorcycle Riders**
- **Others**
 - **Distracted Driving including cell phone and text messaging**

Change in Composition of Fatalities



- Passenger vehicle occupants
- Large trucks, buses & other vehicle occupants
- Motorcyclists
- Peds, bicyclists & other non-occupants

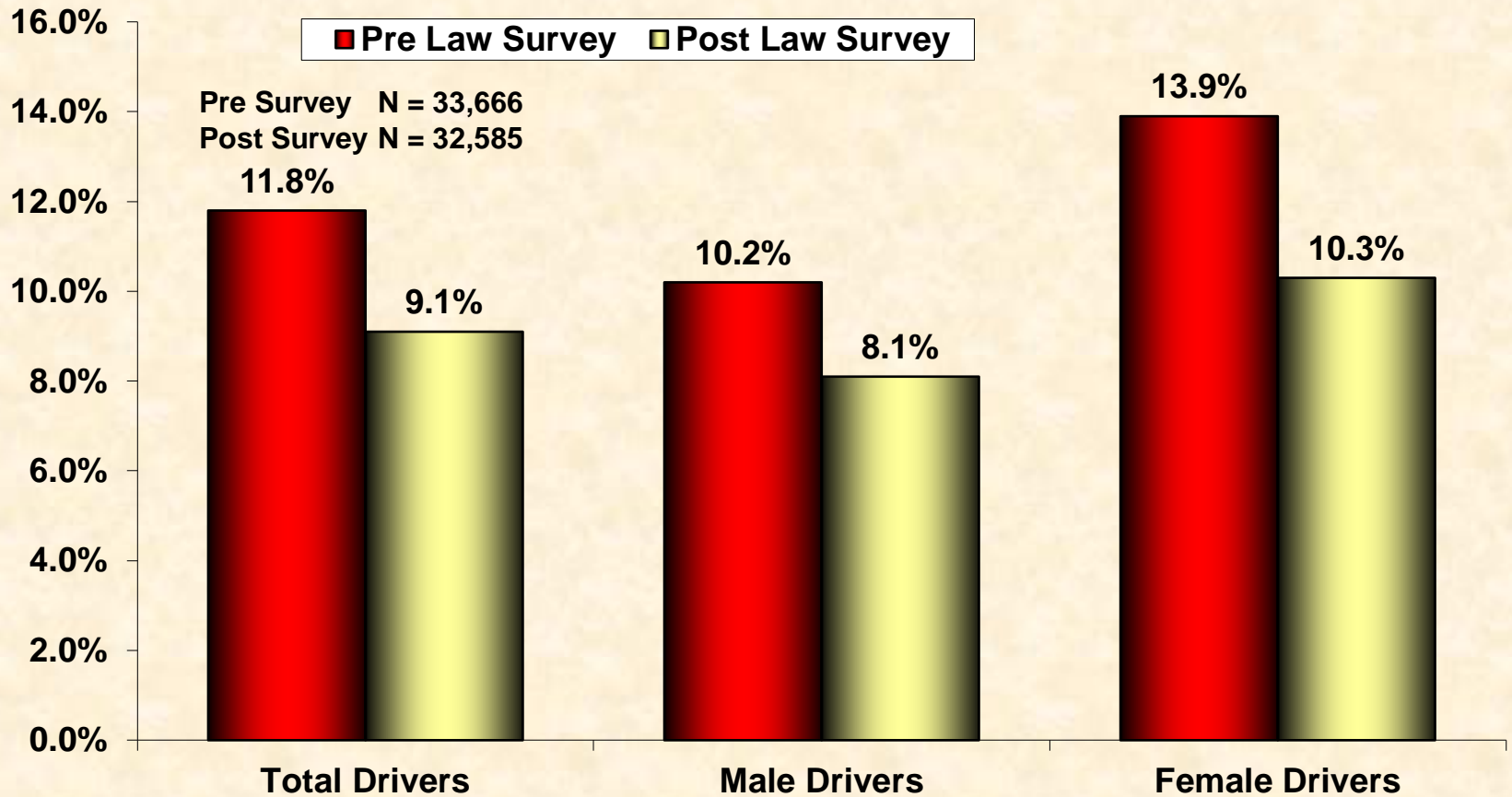
Motorcycle Helmet Use

- **Motorcycle Helmet Usage Rate--Based on the recent annual survey of 288 sites in June 2015, the motorcycle helmet usage rate was 45.5 percent. It should be noted that Illinois does not have a helmet law. The 2014 FARS data show that the total number of motorcyclists who died in motor vehicle crashes went down by 22.7 percent from 152 fatalities in 2013 to 118 fatalities in 2014.**

Helmet Laws

- **Laws requiring all motorcyclists to wear a helmet are in place in 20 states and the District of Columbia (Universal Helmet Law)**
- **Laws requiring only some motorcyclists to wear a helmet are in place in 27 states**
- **There is no motorcycle helmet use law in 3 states (Illinois, Iowa, and New Hampshire)**

Electronic Device Usage Rates by Gender in Illinois (Pre Law and Post Law Surveys)



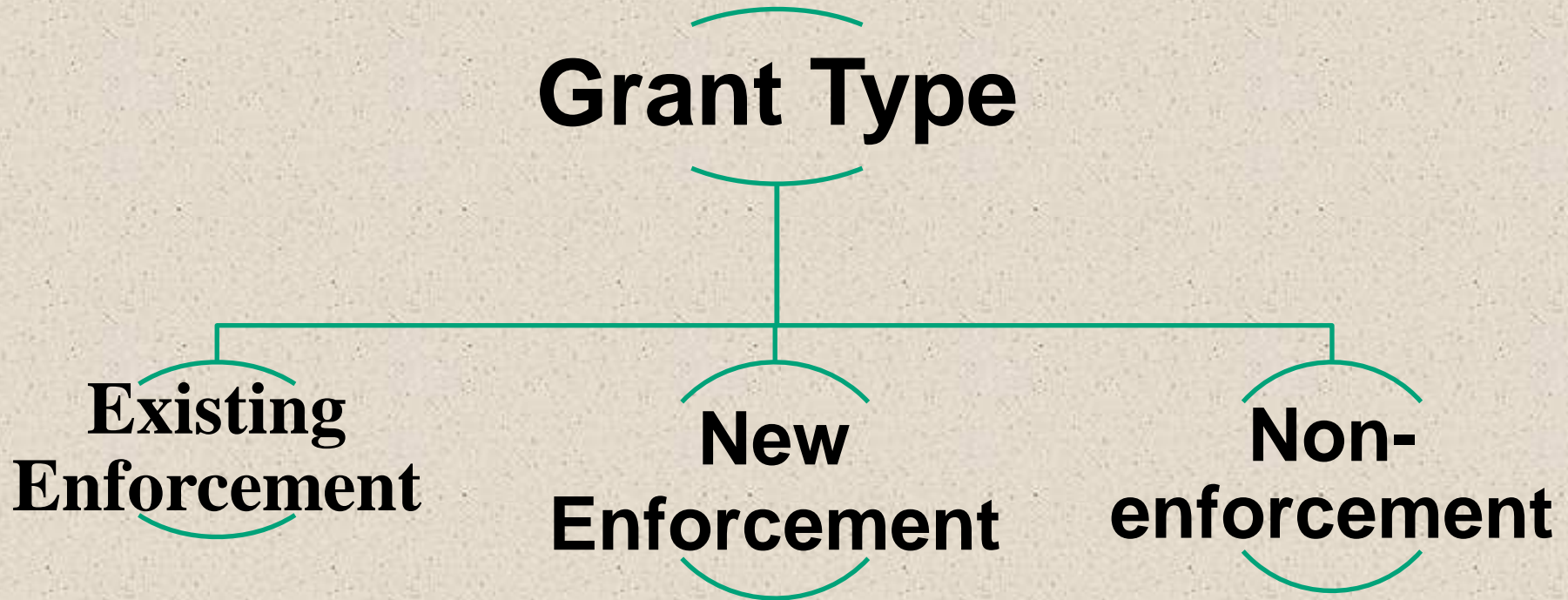
Challenges (Traffic Records/Data)

- **Accuracy, and completeness of Crash Data**
- **Lack of a comprehensive and systematic data quality control**
- **Increase electronic reporting**
- **Integration of Crash and EMS data**
- **DUI Tracking System using SOS and Administrative Office of Courts**
- **Link vehicle and driver databases**

Existing and Future Plans (Traffic Records/Data)

- **Improve Data Accuracy and Integration (Crash & EMS Data) through CODES and IDPH projects (CODES grant and FHWA grant)**
- **Implementing Crash Data Quality Matrix in Illinois**
- **Improve the BAC reporting among survived drivers through access to Trauma Registry Data**

Grants at DTS/IDOT



Project Selection Scorecard for Established Enforcement Grantees

| Project Evaluation Form for Enforcement Grantees | | | | | | | |
|--|--------|----------------------------|-------|--------------|-------|---------------|---------|
| Reviewer #1: | | Reviewer #2: | | Reviewer #3: | | | |
| Agency: | | | | | | | |
| Project Request Title: | | | | | | | |
| Project Request Number: | | | | | | | |
| Requested Funding Level: | | Recommended Funding Level: | | | | | |
| Selection Factors | Weight | Reviewer #1 | Score | Reviewer #2 | Score | Reviewer #3** | Comment |
| Located within 23 Counties | 40 | | 0 | | 0 | | |
| Specific City Population and Crash Data | | | | | | | |
| City/Unincorporated population size of 25,000+ | 5 | | 0 | | 0 | | |
| Over 500 crashes for the last three years | 5 | | 0 | | 0 | | |
| Over 20 percent fatal/injury crashes | 5 | | 0 | | 0 | | |
| Adequate number of enforcement officers to implement the proposed objectives and have a reasonable budget | 5 | | 0 | | 0 | | |
| Have successful previous performance (results of prior years of conducting enforcement activities for both daytime and nighttime): | | | | | | | |
| Submitting acceptable reports and claims | 5 | | 0 | | 0 | | |
| Below average cost of citation | 15 | | 0 | | 0 | | |
| Below average time it takes to issue citation per hour/minutes | 15 | | 0 | | 0 | | |
| Above average nighttime enforcement hours | 5 | | 0 | | 0 | | |
| TOTAL | | | 0 | | 0 | AVG: 0.0 | |

*Rating (1-low 2 3 4 5 6-high)

600

600

**Reviewer #3: 1 = Accept, 2 = Reject, 3 = Accept with Changes

Project Selection Scorecard for NEW Enforcement Grantees

| Project Evaluation Form for <u>NEW</u> Enforcement Grantees | | | | | | | |
|---|--------|---|-------|-----------------------------------|-------|----------------------|----------------------|
| Reviewer #1: <input type="text"/> | | Reviewer #2: <input type="text"/> | | Reviewer #3: <input type="text"/> | | | |
| Agency: <input type="text"/> | | | | | | | |
| Project Request Title: <input type="text"/> | | | | | | | |
| Project Request Number: <input type="text"/> | | | | | | | |
| Requested Funding Level: <input type="text"/> | | Recommended Funding Level: <input type="text"/> | | | | | |
| Selection Factors | Weight | Reviewer #1 | Score | Reviewer #2 | Score | Reviewer #3** | Comment |
| Located within 23 Counties | 50 | <input type="text"/> | 0 | <input type="text"/> | 0 | <input type="text"/> | <input type="text"/> |
| Specific City Population and Crash Data | | | | | | | |
| City/Unincorporated population size of 25,000+ | 5 | <input type="text"/> | 0 | <input type="text"/> | 0 | <input type="text"/> | <input type="text"/> |
| Over 500 crashes for the last three years | 10 | <input type="text"/> | 0 | <input type="text"/> | 0 | <input type="text"/> | <input type="text"/> |
| Over 20 percent fatal/injury crashes | 10 | <input type="text"/> | 0 | <input type="text"/> | 0 | <input type="text"/> | <input type="text"/> |
| Adequate number of enforcement officers to implement the proposed objectives and have a reasonable budget | 25 | <input type="text"/> | 0 | <input type="text"/> | 0 | <input type="text"/> | <input type="text"/> |
| TOTAL | | | 0 | | 0 | AVG: 0.0 | |

*Rating (1-low 2 3 4 5 6-high)

600

600

**Reviewer #3: 1 = Accept, 2 = Reject, 3 = Accept with Changes

Project Selection Scorecard for NON-Enforcement Grantees

| Project Evaluation Form for Non-Enforcement Grantees | | | | | | | |
|---|--------|----------------------------|-------|--------------|-------|---------------|---------|
| Reviewer #1: | | Reviewer #2: | | Reviewer #3: | | | |
| Agency: | | | | | | | |
| Project Request Title: | | | | | | | |
| Project Request Number: | | | | | | | |
| Requested Funding Level: | | Recommended Funding Level: | | | | | |
| Selection Factors | Weight | Reviewer #1 | Score | Reviewer #2 | Score | Reviewer #3** | Comment |
| Located within 23 Counties | 20 | | 0 | | 0 | | |
| Affected Population (the higher the number of the affected population the higher the rating of the score) | 10 | | 0 | | 0 | | |
| Adequate staff experience and qualification to implement the proposed objectives | 10 | | 0 | | 0 | | |
| Have successful previous work experience based on the annual evaluation | 15 | | 0 | | 0 | | |
| Project Evaluation: Does the project request: | | | | | | | |
| Address a safety problem adequately? | 10 | | 0 | | 0 | | |
| Have measurable and reasonable goals? | 5 | | 0 | | 0 | | |
| Method(s) of resolving specific safety problems? | 5 | | 0 | | 0 | | |
| Reasonable budget? | 5 | | 0 | | 0 | | |
| Have an evaluation component? | 5 | | 0 | | 0 | | |
| TOTAL | | | 0 | | 0 | AVG: 0.0 | |

*Rating (1-low 2 3 4 5 6-high)

600

600

**Reviewer #3: 1 = Accept, 2 = Reject, 3 = Accept with Changes

Where to obtain information for Enforcement Project Evaluation Forms

Use Excel spreadsheet labeled 'FY 2015 Project Selection Criteria' provided by Evaluation Unit staff for the following items:

- 1) Located within 23 counties
- 2) City/Unincorporated population size of 25,000+
- 3) Over 500 crashes for the last three years
- 4) Over 20 percent fatal/injury crashes
- 5) Adequate number of enforcement officers to implement proposed objectives and have a reasonable budget
- 6) Below average cost of citation
- 7) Below average time it takes to issue citation per hour/minutes
- 8) Above average nighttime enforcement hours

Where to obtain information for NON-Enforcement Project Evaluation Form

Use Excel spreadsheet labeled 'FY 2015 Project Selection Criteria' provided by Evaluation Unit staff for the following items:

- 1) Located within 23 Counties
- 2) Affected population

Refer to Project Proposal for the following items:

- 3) Adequate Staff experience and qualification
- 4) Address a safety problem adequately
- 5) Have measurable and reasonable goals
- 6) Methods of resolving specific safety problems
- 7) Reasonable budget
- 8) Have an evaluation component

Additional Supporting Materials (optional):

- 1) Enforcement Activity Reports (select enforcement table at the following link):**
<http://www.idot.illinois.gov/transportation-system/safety/evaluations>
- 2) U.S. Census:**
<http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- 3) Fatal Accident Reporting System (FARS):**
<http://www-fars.nhtsa.dot.gov/Main/index.aspx>
- 4) Illinois Roadway Crash Data:**
<http://www.idot.illinois.gov/transportation-system/safety/Illinois-Roadway-Crash-Data>

Common Mistakes in Completing TS 205 Form

- Leaving the wrong campaign box checked
- Using last year's project number
- Incorrectly reporting hours worked, Sections II, III and IV
- Reporting a certain number of details, but not reporting hours for that type of detail, Sections II, III and IV (**Agency will report working 3 saturation patrols, but list hours worked for roadside safety check only**).
- Reporting daytime or nighttime citations but not reporting hours for that time of the day/night, Section V (**Agency will report citations for daytime, but no hours for daytime enforcement**).
- Not updating media effort numbers on each report (**Agency either leaves blank or doesn't update media efforts from last report**).

Contact Information

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DTS' Evaluation Website:

<http://www.idot.illinois.gov/transportation-system/safety/evaluations>