



# MINNESOTA TOWARD ZERO DEATHS

## Welcome to the TZD Stakeholder Breakfast

January 6, 2016

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# Minnesota Distracted Driving Survey

TZD Stakeholder Breakfast  
January 6, 2015

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Office of Traffic Safety

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# Introduction

- Purpose - Assess the prevalence of distracted driving behaviors on Minnesota roads and to generate baseline data for future comparisons
- Pre-Survey - A two-day pilot was conducted using two Office of Traffic Safety researchers as observers
- Timing - The survey was conducted from July 27 to August 9, 2015

# Methodology

- Designed to meet the sampling and data quality requirements of the Uniform Criteria for State Observational Surveys of Seat Belt Use
  - NHTSA-approved methodology
- Data collected through direct observation at 201 predetermined sites
- Drivers of cars, vans/minivans, sport utility vehicles, pickup trucks and commercial vehicles less than 10,000 lbs. were observed

# Methodology continued

- Four observers and a field supervisor
- Observations conducted between 7:00 a.m. and 6:00 p.m.
- Start times were staggered to ensure that a representative number of weekday, weekend, rush hour and non-rush hour observations were included
- Driver observations were conducted for 45 minutes per site
- 170 sites with moving traffic
- 31 sites with stopped traffic

# Sample Design

- 51 counties account for 85.5 percent of passenger vehicle crash-related fatalities according to the Fatality Analysis Reporting System data averages for the period 2007-2009
- 2010 Road Segment data provided by MNDOT
  - Same source data as used for the Observational Seat Belt Surveys

# Sample Design continued

- Excluded low response sites and road segments with no controlled intersection
- Necessary to reduce the disproportionate influence of low-response sites in determining the statewide rate
- 201 observation sites remained with a subset of 31 traffic light-controlled sites

# Sample Design continued

Stratum	Location/Road Type	N	Percent Unweighted Distracted	Percent Weighted Distracted
Hennepin	Primary	2,507	27.12	33.09
Hennepin	Secondary	1,300	34.92	32.36
Hennepin	Local	179	25.70	25.18
High VMT	Primary	2,160	28.66	30.87
High VMT	Secondary	1,078	32.93	30.28
High VMT	Local	133	34.59	37.12
Med VMT	Primary	1,390	34.75	35.20
Med VMT	Secondary	788	29.31	35.54
Med VMT	Local	84	23.81	23.34
Low VMT	Primary	1,123	29.92	39.02
Low VMT	Secondary	712	24.02	30.20
Low VMT	Local	17	5.88	4.18
Overall	Statewide	11,471	30.01	29.13



# Distracted Behaviors

- Interacting with Front or Back seat passengers
- Cell phone handling
- Cell phone conversation
- Eating
- Smoking
- Reaching for object
- Drinking

# Distracted Behaviors cont.

- ◉ Interacting with vehicle control console
- ◉ Pets
- ◉ Reading
- ◉ Music
- ◉ Grooming

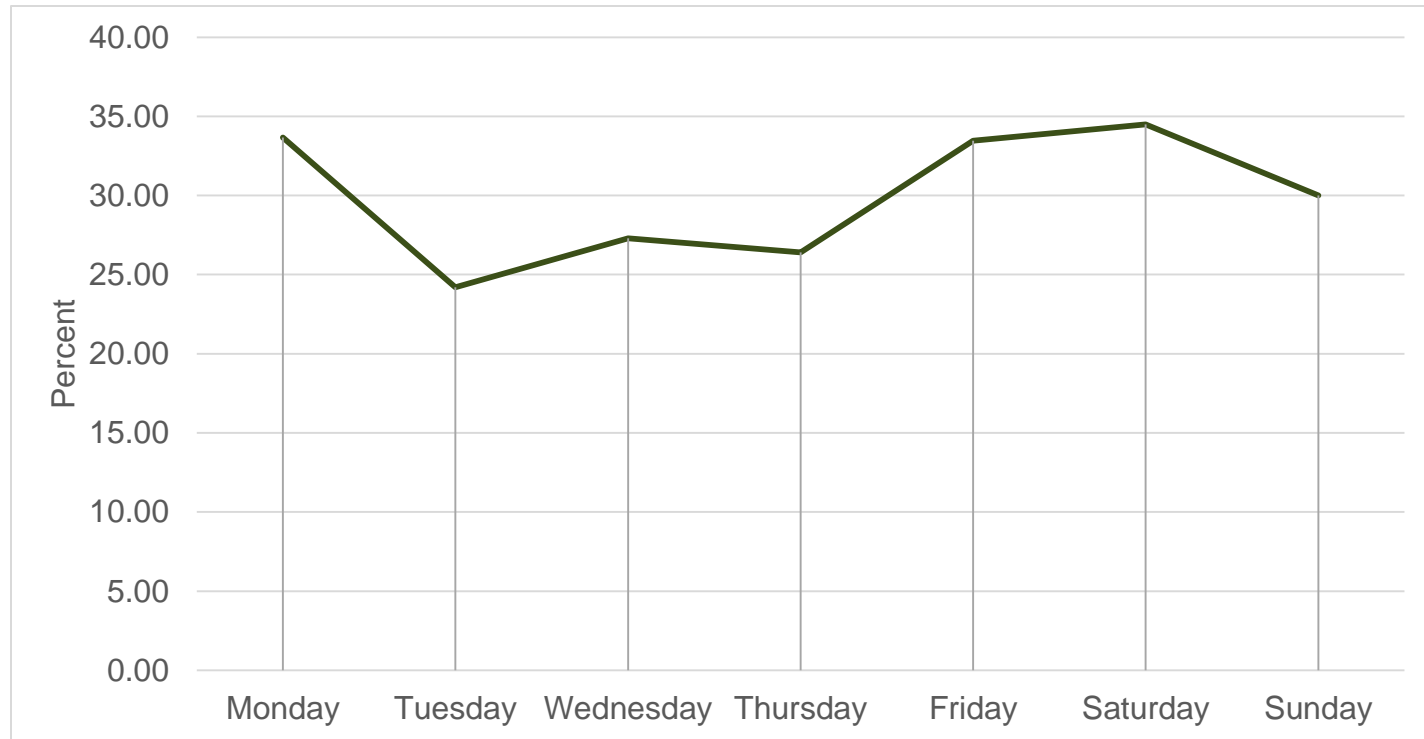
# Survey Results

- Survey conducted from July 27 to August 9, 2015
- 11,471 drivers were observed
- Distraction rate of 29.13 percent (weighted estimate)

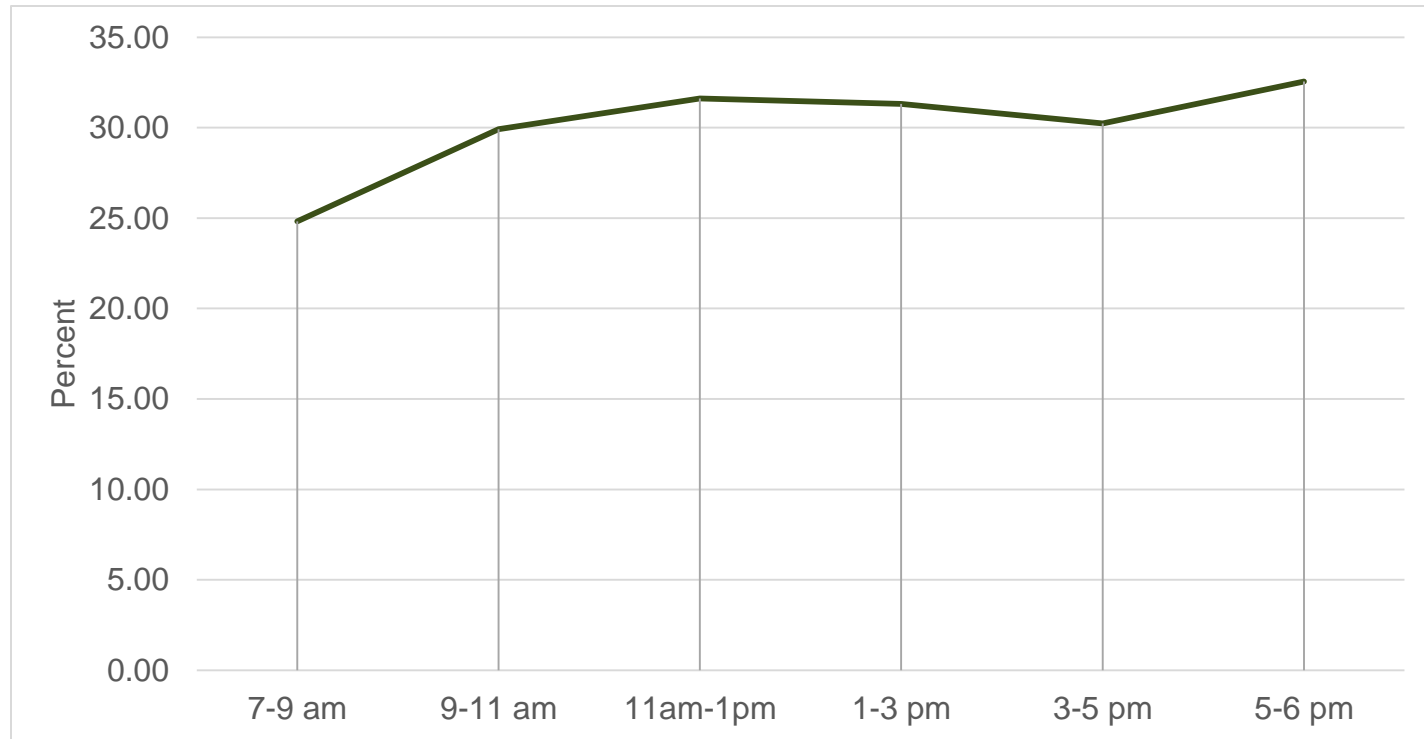
# Distractor Type by Gender

Distractor	Percent Distracted	
	Male	Female
Cell Call	4.7	4.0
Cell Handling	5.3	3.9
Reaching	1.1	2.4
Smoking	2.0	2.2
Passenger Front	0.5	2.2
Passenger Back	14.3	8.4
Drinking	1.4	1.9
Eating	1.1	3.6
Other	0.6	0.8

# Distracted Driving Across Days of the Week



# Distracted Driving Across Hours of the Day



# Discussion

- Distraction falls into three main categories
  - Manual
  - Visual
  - Cognitive
- Interacting with technology results in all three at the same time
  - There are lingering effects of such interaction
- “Inattention Blindness” can be the result

# Discussion continued

- NHTSA-approved methodology for extrapolating data to actual numbers of incidents of behaviors
- Approximately 4.56 million registered vehicles in Minnesota of the types observed
- Assuming each being used for one hour during daylight in Summer
  - Approximately 380,000 vehicles on the road at any given time



## Discussion continued

- Approximately 30 percent of vehicles included occupants other than the driver
- Active conversation was recorded 48.5 percent of the time
- Rear seat passengers were in conversation with the driver in 11.9 percent of all vehicles (over 45,000 vehicles)
- Front seat passengers were in conversation with the driver in 1.2 percent of all vehicles (over 4,500 vehicles)

# Discussion continued

- Cell phone handling in 4.8 percent of all vehicles (over 18,000 vehicles)
- Cell phone calls in 4.4 percent of all vehicles (almost 17,000 vehicles)
- Second and third most prevalent distractors
- Handling percentage – Consider short window to observe texting
- Remaining distractions include:
  - Eating (2.2 percent)
  - Smoking (2.1 percent)
  - Reaching for unspecified object or control (1.7 percent)
  - Drinking (1.6 percent)
  - Other distractors (0.7 percent)

## Discussion continued

- Male drivers (30.2 percent) were more likely to be distracted than female drivers (27.6 percent)
- Teen and young adult drivers (ages 16 – 29) were the most likely to be distracted (35.5 percent)
- Drivers of vans/minivans were the most likely to be distracted (37.6 percent) followed by drivers of pickup trucks (31.4 percent), SUVs (28.5 percent) and passenger cars (26.3 percent)

## Discussion continued

- Drivers on local roads (20.3 percent) were less likely to be distracted than those driving on secondary (31.2 percent) or primary (35.1 percent) roadways
- As speed and congestion increase, so does prevalence of distraction
- The distracted driving rate for the seven county Metro area is 30.9 percent
- The distracted driving rate for rural Minnesota is 27.5 percent
- The statewide distracted driving rate is 29.13 percent (nearly 111,000 vehicles)