



TxDOT'S SAFETY CULTURE: MISSION ZERO

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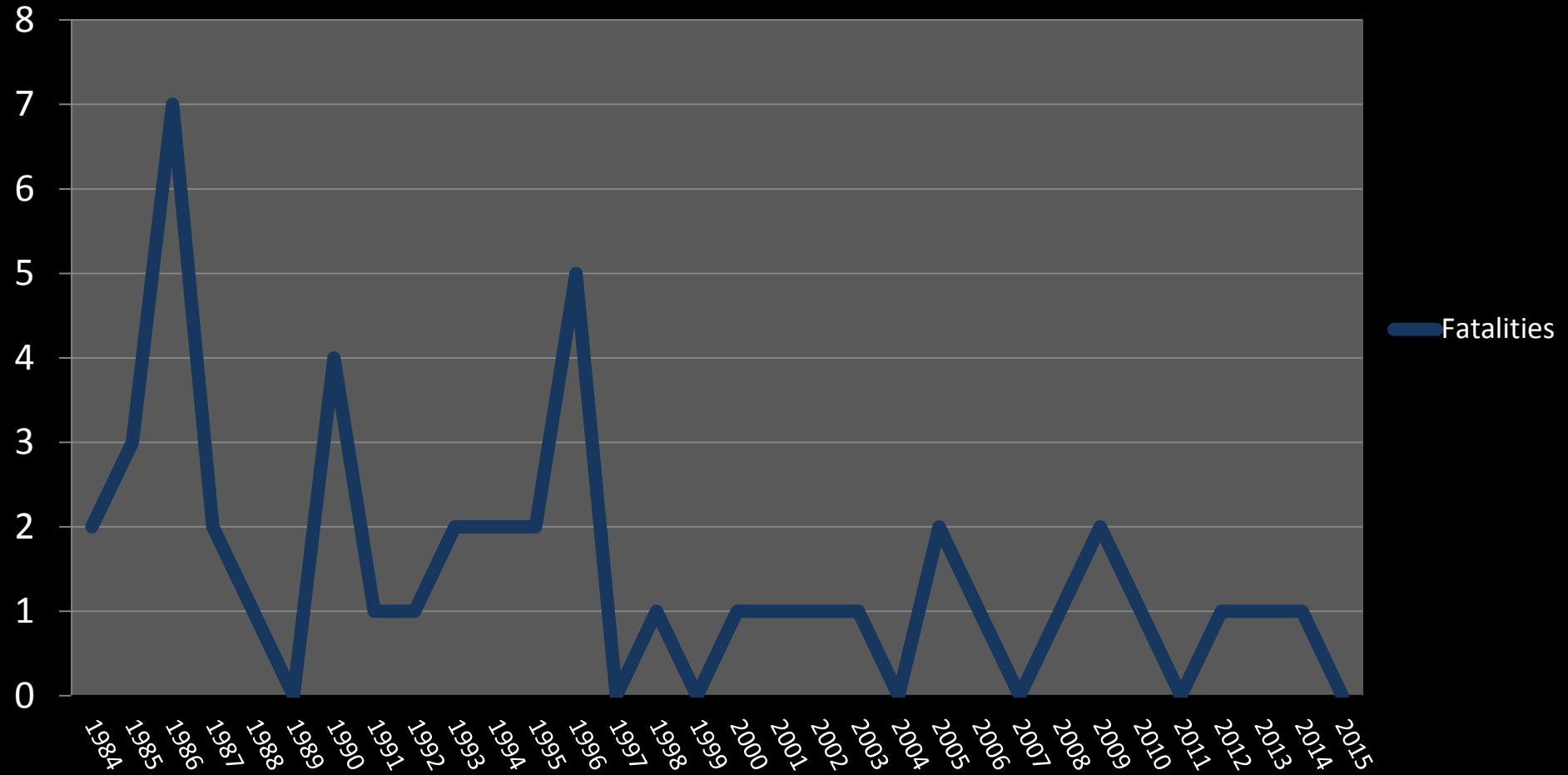


Safety: Mission

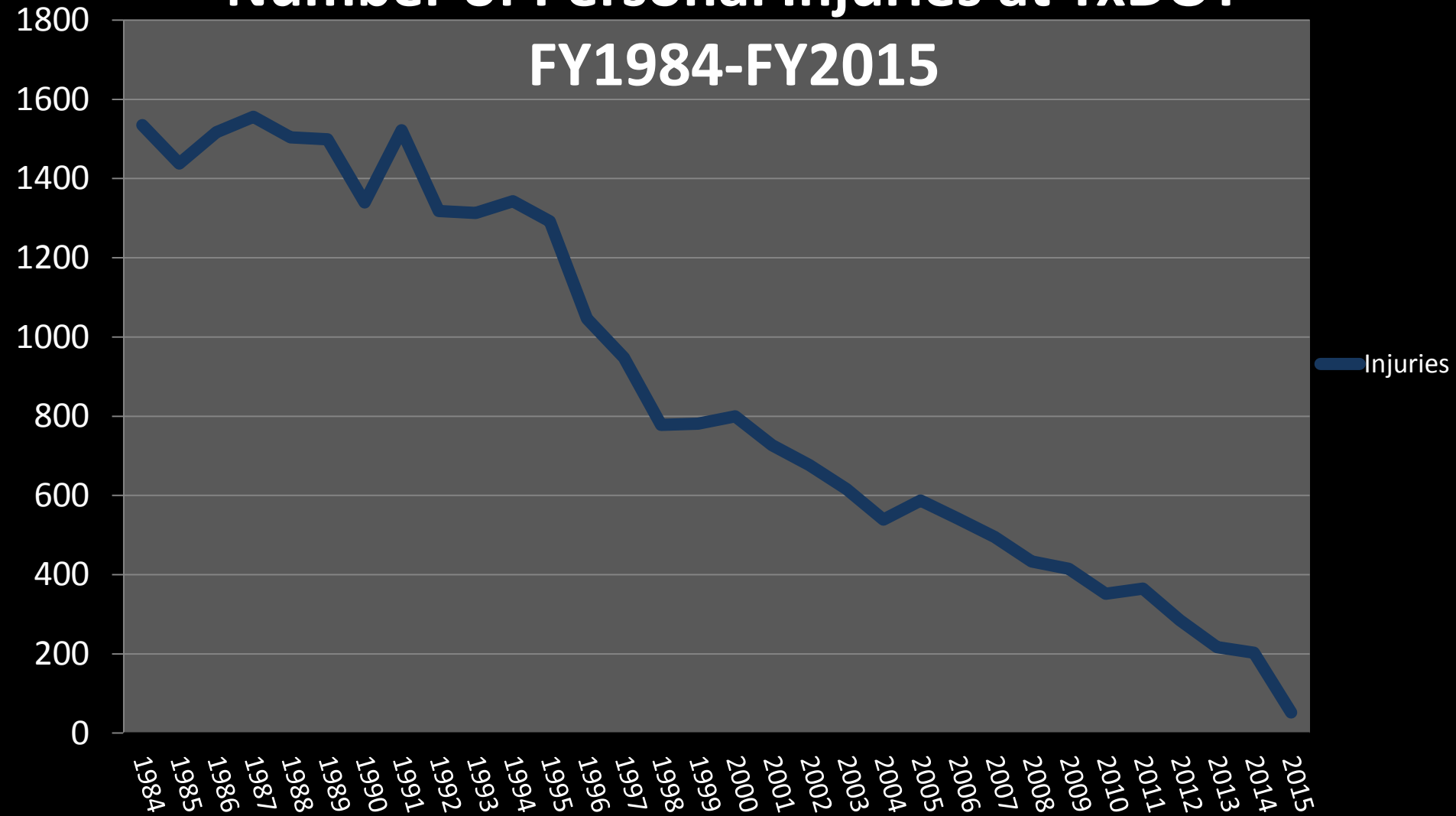
ZERO



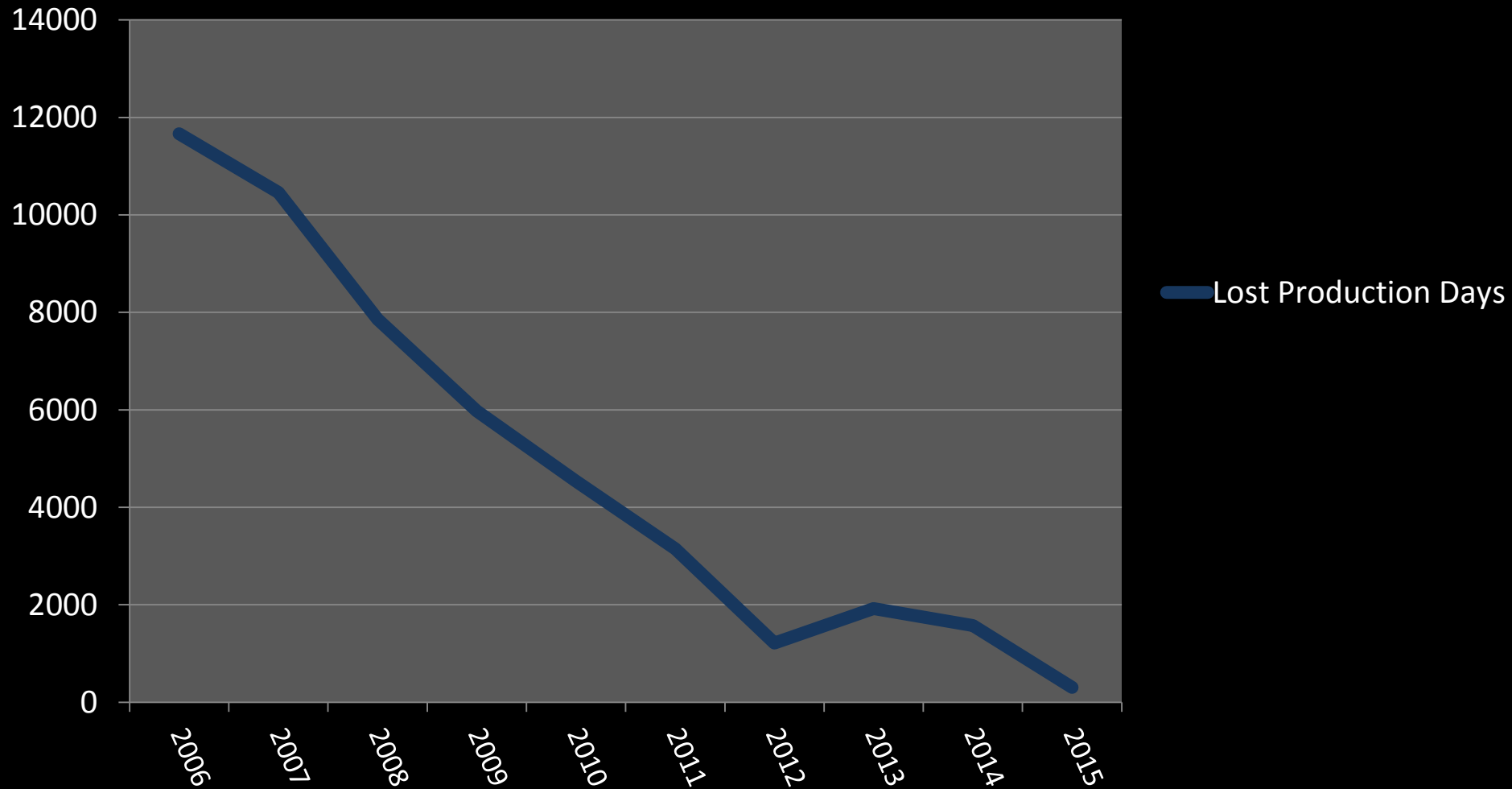
TxDOT Employee on the Job Fatalities FY1984-FY2015



Number of Personal Injuries at TxDOT FY1984-FY2015

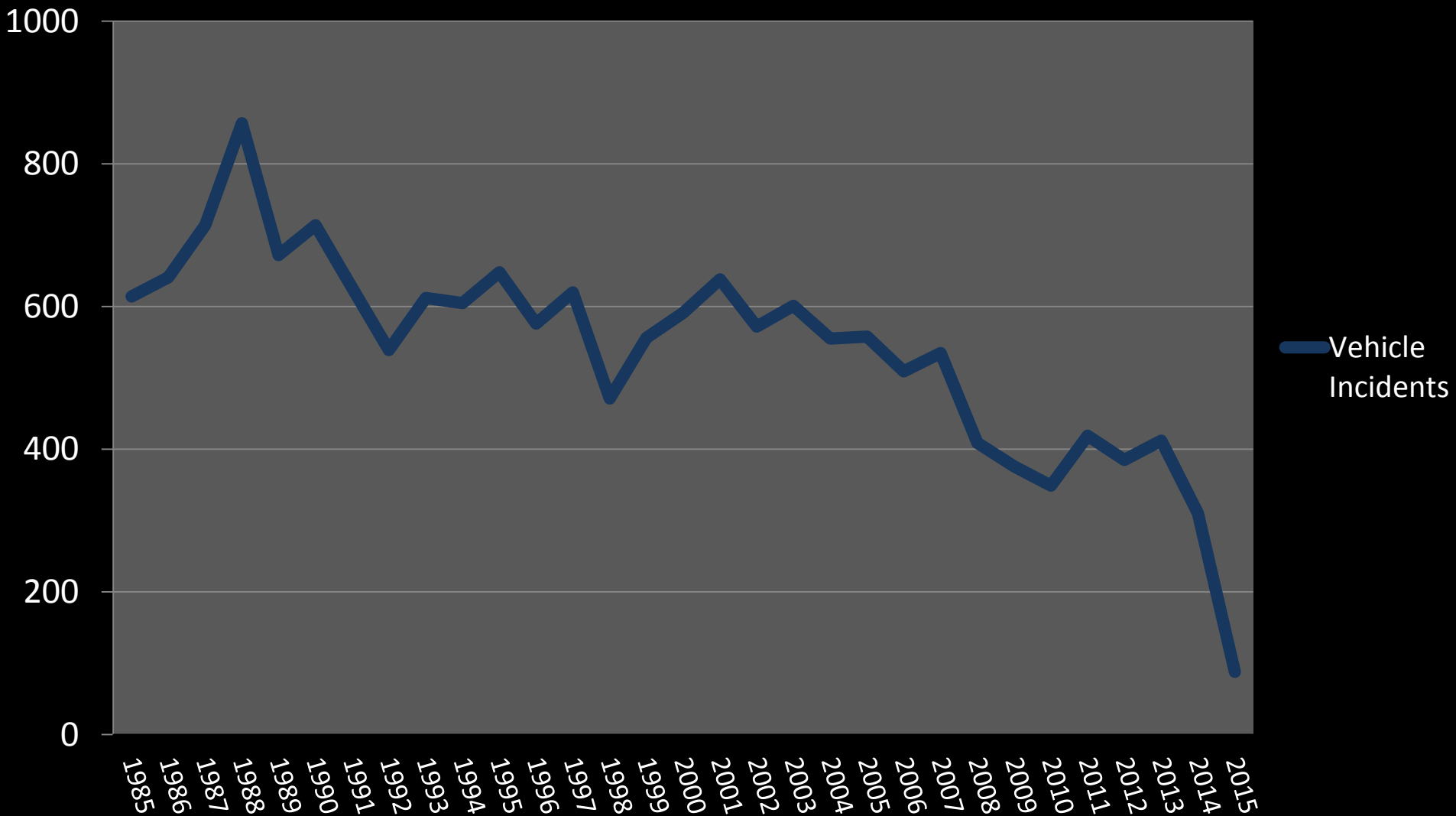


Number of Lost Days at TxDOT FY2006-FY2015



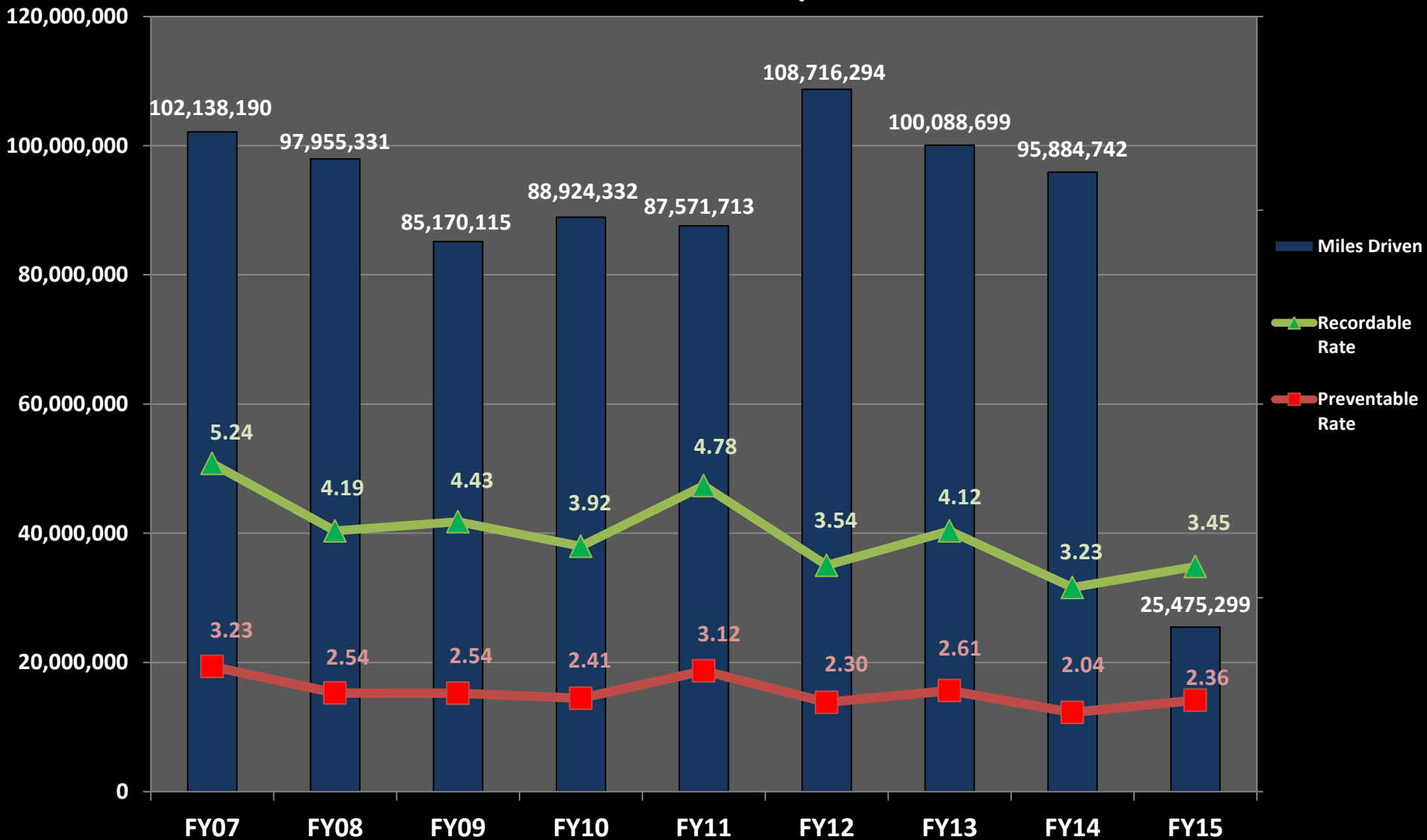
Safety: Mission ZERO

Number of Vehicle Incidents at TxDOT FY1985-FY2015



Safety: Mission ZERO

FY07-FY15 Miles Driven and Preventable/Recordable Incident Rates



TxDOT Plan For Success

1. 0.29 Lost Time-Rate
2. Leadership
3. Collaboration Between Safety and Operations
4. Employee Involvement/Buy-In
5. Improved Accountability
6. Play of the Day – Recap
7. Recognition
8. Aggressive Return To Work
9. Mission Zero
10. Safety Process Follow Through



CONCERNS



Since TxDOT Started Keeping Records in
1938 . . .

We have suffered

**52 Deaths Struck by 3rd Party
in a Work Zone**

**15 Deaths Struck by Contractor
Equipment**

25 Deaths Struck by TxDOT Equip

Safety: Mission ZERO

Back Against Traffic?



Safety: Mission ZERO





Traffic Control Retrieval-Employee Struck By Motorist

Employee stepped off cone trailer to retrieve cone on opposite side of road. Employee stepped into open traffic lane and was struck by truck and trailer.

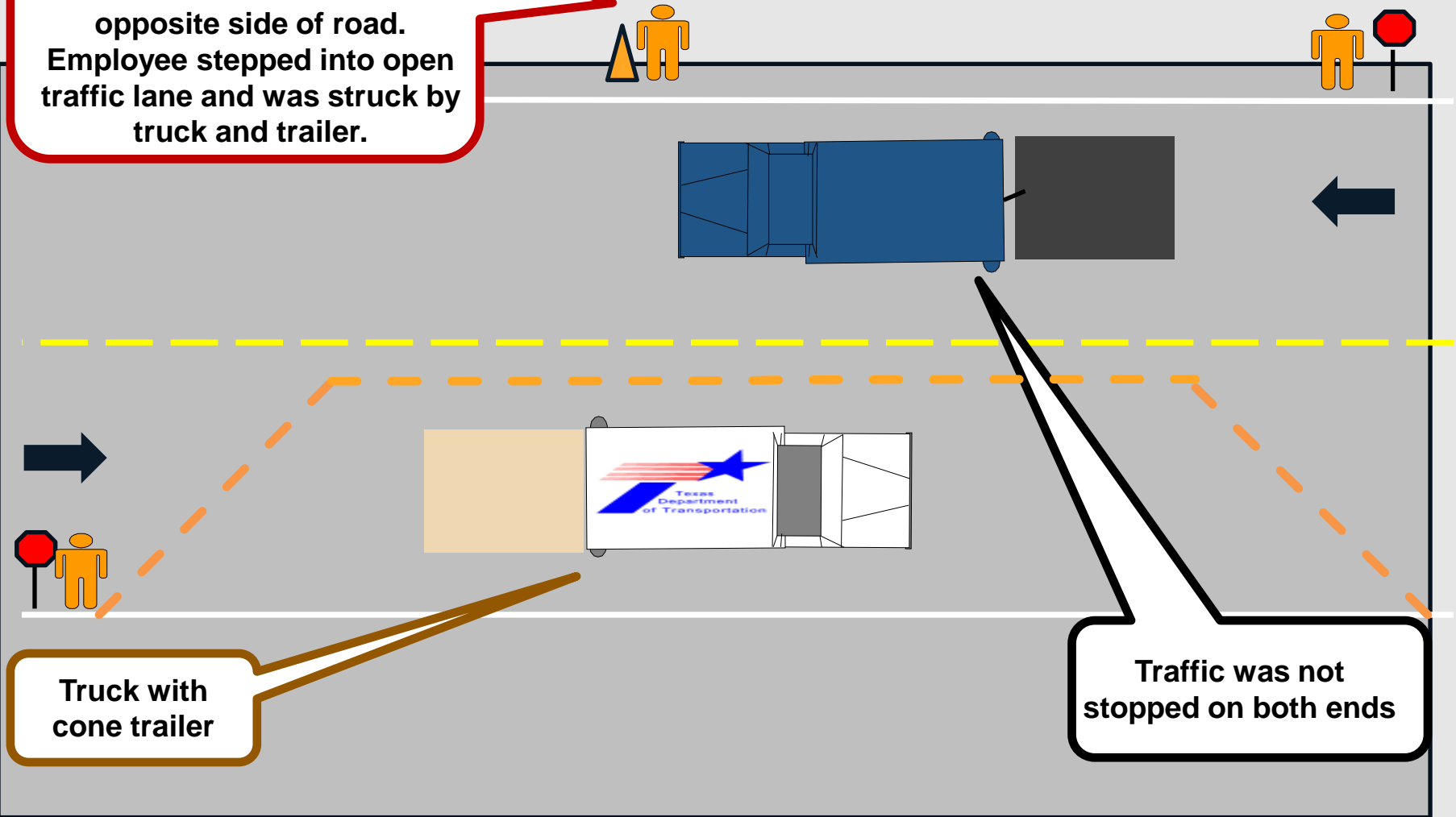
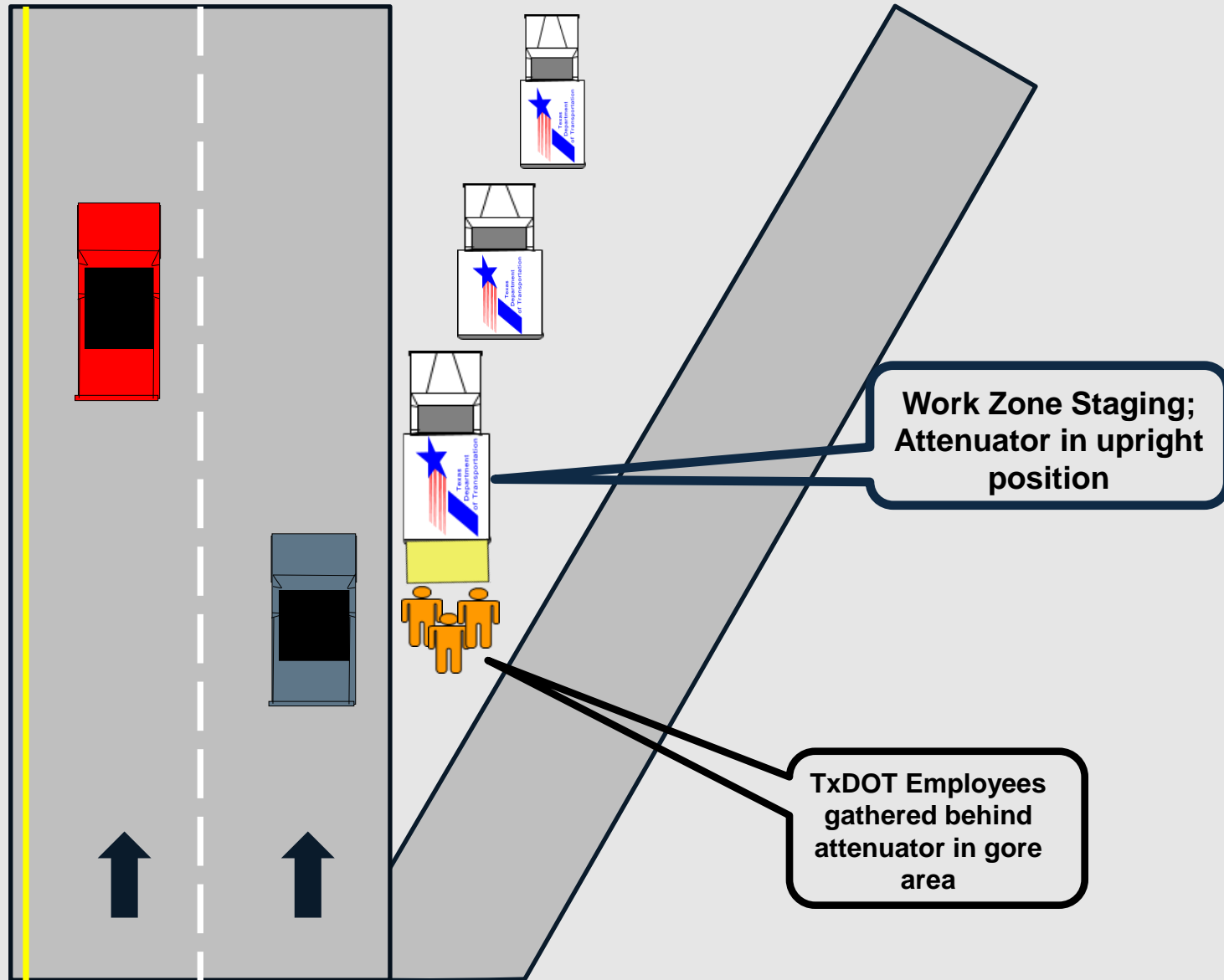


Diagram: Traffic Awareness-Staging in Gore Area



Workers on Foot Must:

- Situational Awareness
 - Keep a safe distance from traffic
 - Avoid turning your back to traffic
 - Stay behind protective barriers
- Look out for each other
 - Communicate with co-workers
- Wear high visibility clothing and headgear

Since TxDOT Started Keeping Records in
1938 . . .

We have suffered

19 Deaths while Flagging Traffic

Safety: Mission ZERO



Safety: Mission ZERO



Since TxDOT Started Keeping Records in
1938 . . .

We have suffered

**22 Deaths from
Equipment Roll Over**

**8 Deaths from Riding on Outside of
Equipment**

8 Deaths from Equipment Maintenance

Safety: Mission ZERO



Safety: Mission ZERO



“Safety Circle”



- Approach only from the front – about a 60° arc.
Make eye contact with the operator

Safety: Mission ZERO



Safety: Mission ZERO



Since TxDOT Started Keeping Records in
1938 . . .

We have suffered

28 Deaths on the Shoulder or ROW

**5 Deaths from Flying, Thrown or Falling
Objects**



Safety: Mission ZERO



Safety: Mission ZERO



TMA's Work!

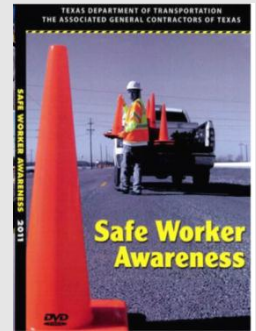




HOW CAN WE MAKE
A POSITIVE IMPACT?
INFLUENCE BEHAVIOR AND DEVELOP A SAFETY
CULTURE

AGC/TxDOT Joint Safety Task Force

- Meets monthly to discuss safety items relevant to both TxDOT and AGC members
- Jointly produces videos:
 - *Highway Construction Work Zone Hazards*
 - *Crane Hand Signals*
 - *Fall Protection*
 - *Safer Worker Awareness*
 - *Attention: Work Zone Ahead*, on distracted driving through work zones



Employee Recognition Programs

- Safety Awards Banquets
 - Opportunity to share a meal and celebrate group and individual accomplishments:
 - Safe Operator Award
 - No Injury Award
 - Group No Lost Time



Summer Awareness Campaign

- 123 Safe Days of Summer
 - May 1 thru August 31
 - Highlight top performers in franchise categories
 - Rural
 - Urban
 - Metro
 - Lowest combined incidence and recordable vehicle rates



Dallas District
123 Safe Days of Summer
2014 Short Course



Safety: Mission

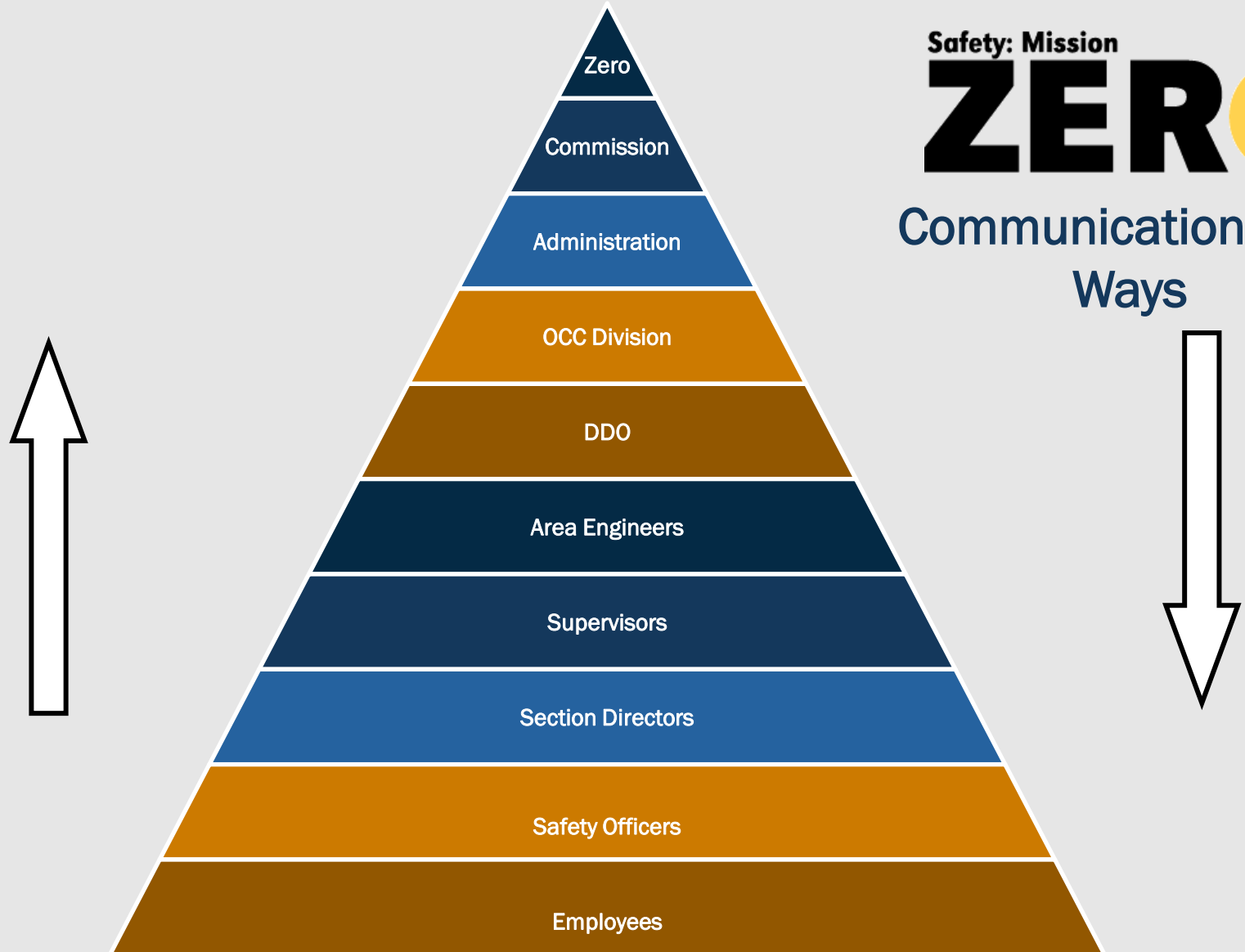
ZERO

ZERO Injuries

Better to lose one minute in life...
than to lose one life in a minute.



Safety: Mission ZERO



Safety: Mission
ZERO
Communication Both
Ways

The Vision of Safety: Mission Zero

- Department Wide Commitment to:
 - Zero Injuries
 - Zero Lost-Time
 - Zero Preventable Incidents
 - Zero Fatalities
- Incorporate Safety into decision making at all levels of operations
- Ultimate Goal:
 - Prevent that “One” fatality we statistically face every year...

Safety: Mission ZERO



Details!

- F** Find and recognize hazards
- O** Openly search to correct and eliminate hazards
- C** Coordinate the use of resources
- U** Understand the risks at all times
- S** Safety will save your life

Communication

- PLAN
- COMMUNICATE
- FOLLOW-THROUGH



Plan Safety Into Every Job

- Play of The Day!
 - Discuss Traffic Control Plan
 - Discuss Internal Traffic Control Plan
- Recap – End of the Day
- Safety: Every Second Every Day!!





EVALUATE TXDOT'S DRIVER IMPROVEMENT PROGRAM

Safety: Mission ZERO

Defensive Driving

- Every three years
- All driving employees
- Classroom/Online



Smith System of Driving

- 6,500 trained last three years
- Focus on building space cushion
- Reduced severity of incurred liability claims



5 Keys to Stay Alive

The Smith5Keys®

Key 1 Aim High In Steering®

Key 2 Get The Big Picture®

Key 3 Keep Your Eyes Moving®

Key 4 Leave Yourself An Out®

Key 5 Make Sure They See You®

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Dump Truck Rodeo



Drive Along Observation

Training Employees to be Safer Drivers

- Encompasses 100 observations of various driving skills and methods.
- All drivers complete or review the Drive Along Form prior to the drive.
- Each driver session involves a one hour office discussion about numerous safe driving issues followed by an intensive two hour on-road assessment.
- Follow up within 30 days on identified improvement areas

Safety: Mission ZERO

Accountability

- Preventable Incident Disciplinary Plan
 - Three and Out
- Backing Policy
 - Walk Around
 - Spotters
 - Avoid backing
 - Charge back



This is not a phone booth.





HOW DO YOU MANAGE AND COMMUNICATE YOUR SAFETY AND HEALTH SYSTEM?

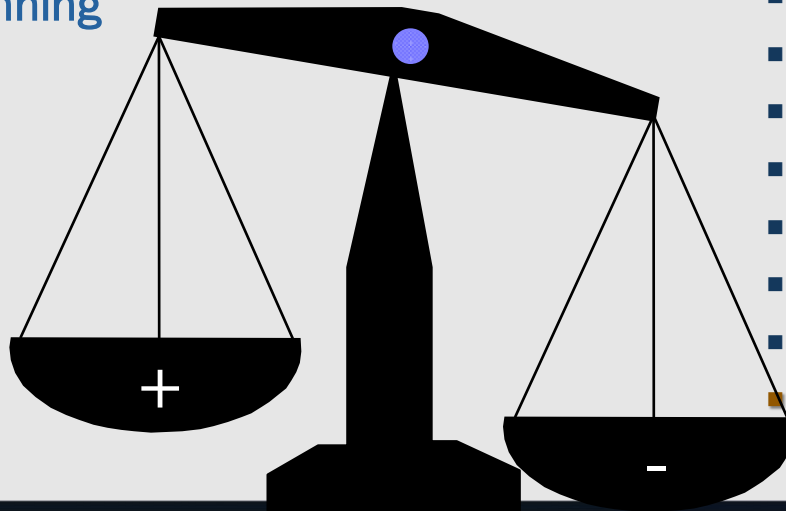
There's a role for everyone!

Working the System

- Leadership and Management Commitment
 - Priority setting
 - Safety can suggest, so can committees
 - Policy development
 - Mission statement/goals
 - Accountability
 - Pro-active discipline, and expectations
- Employee involvement
- Recognition by supervision
- Budget

Safety Culture Balance

- Outstanding Performance
- Positive Environment
- Trust Between Employees
- Safety Interdependence
- Mgt. Demonstrates Strong Leadership Qualities
- Positive Emotional Bank Accounts
- Peer Review (BBS)
- Employee Involvement
- Clear Planning



- Poor Performance
- Negative Environment
- Mistrust Between Employees
- Safety Dependence- Independence
- Poor Leadership Qualities
- Negative Emotional Bank Accounts
- Hide from Authority
- No Employee Involvement
- No Planning

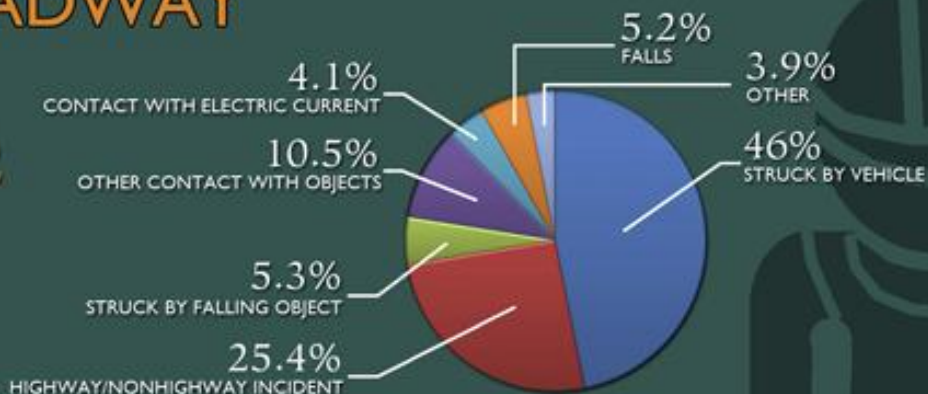
Role of a Safety Professional

- Knowledge transfer: “Sell it, don’t tell it”
 - Training
 - Coaching
 - Teach others “how to fish on their own”
- Be THE resource!!
- Communicate with All Levels of Management
- Provide Check and Balance
- Team Member!
- Must spend majority of their time in the field
- PASSION FOR THE JOB! Lead By Example!
- Listen and listen well!!!!!!!!!!!!!!

Work Zone Intrusions Threaten Safety

CAUSES OF ROADWAY FATALITIES

Total Work Zone-Associated Worker Fatalities 2003-2010: **962**



Source: Bureau of Labor Statistics



More than half (58.7%) of backovers involve a dump truck

In about one-third (31.1%) of backover fatalities, no back-up alarm was functioning.



In about 1 out of 10 fatalities, workers were flagging (3.3%) or performing traffic control duties (6.3%)

About 20% were wearing high visibility clothing



4% KILLED BY CONTACT WITH ELECTRICITY



2.4% TRENCH COLLAPSES KILLED OF ROAD WORKERS



2% LESS THAN OF WORKERS WERE KILLED BY A DRUNK DRIVER



FALLS TO LOWER LEVEL KILLED 4.7% OF WORKERS

A THIRD WERE NOT USING FALL PROTECTION YET WORKERS WERE WORKING ON BRIDGES OR OVERPASSES

Work Zone Intrusions Threaten Safety

Jan. 2014, Scott Schneider, LHSFNA Director of Occupational Safety & Health

Each year, about 100 road construction workers are killed on the job.

"Inside work zones, the most common fatalities are workers struck or backed over by dump trucks or other construction vehicles," says LIUNA General Secretary Treasurer and LHSFNA Labor Co-Chairman Armand E. Sabitoni, noting that many of these tragedies can be prevented through the better use of internal traffic controls, technology, planning and proper training.

"Unfortunately," Sabitoni continues, "the other major problem – intrusions, motorists crashing into work zones and hitting workers – is a lot harder to control."



Temporary Rumble Strips



Lane closures on conventional highways with posted speed limit of 75 mph or less

Automated Flagging Assistance Devices (AFADs)

Type 1

STOP/SLOW

Type 2 (Right)

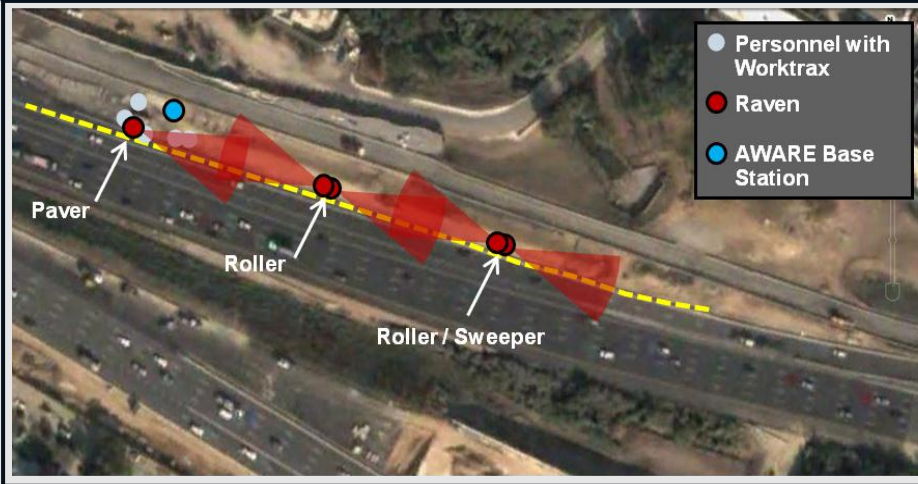
Red/Yellow lens

Both types required gate
arm per TxDOT Standard
TCP (1-6) – 12



AWARE

- Combined technologies:
 - Advanced RADAR
 - Situational Awareness (
 - Threat deterrent



Technology Breakdown:

1. Advanced RADAR)



2. Situational Awareness



3. Threat Deterrent (Sirens, Lights)



We Remember...



Just One...

It takes one minute to write a safety rule

It takes one hour to hold a safety meeting

It takes one day to hold a safety class

It takes one month to put a plan into operation

It takes one year to win a safety award

It takes one lifetime to make a safe worker

It takes one second to destroy it all with...

One Incident



QUESTIONS?



WORK ZONE
AWARENESS WEEK | APRIL 7-11, 2014

**PAY ATTENTION
OR PAY THE PRICE**

You're in the driver's seat.

BE SAFE. DRIVE SMART.



CHECKING THESE VITAL SIGNS CAN SAVE A LIFE.

Thousands of Texans die needlessly every year because drivers ignore important road signs. Here are a few simple things you can do that could save a life—maybe even your own:

			
A pedestrian is killed every day in Texas, on average. <ul style="list-style-type: none">• Watch for pedestrians• Don't block the crosswalk with your vehicle• When you're a pedestrian crossing a street, watch out for traffic and stay off your phone	Speed is a factor in over 700 deaths a year in Texas. <ul style="list-style-type: none">• Obey the posted speed limit & drive to road conditions• Don't drive aggressively• Keep proper distance behind the vehicle in front of you	Over 100 Texans are killed in work zones every year. <ul style="list-style-type: none">• Slow down and drive the posted speed in work zones• Watch for workers• Obey all signs and be prepared to stop• Keep a safe distance from the car in front of you	On average, a cyclist is killed every 9 days in Texas. <ul style="list-style-type: none">• Watch for cyclists in traffic: they are smaller & harder to see• Allow 3 feet of clearance when passing a cyclist (it's the law)• Never drive in a bike lane; cyclists are allowed the entire lane

Drive FRIENDLY. Drive SAFE.

Thanks, you're a lifesaver! **Save a Life**
Texas Department of Transportation

Safety: Mission

ZERO