

First Year Evaluation Results from the Co-location of DPS Troopers at the ADOT Traffic Operations Center (TOC)

A Regional Strategy to Improve
Freeway Traffic Incident
Management

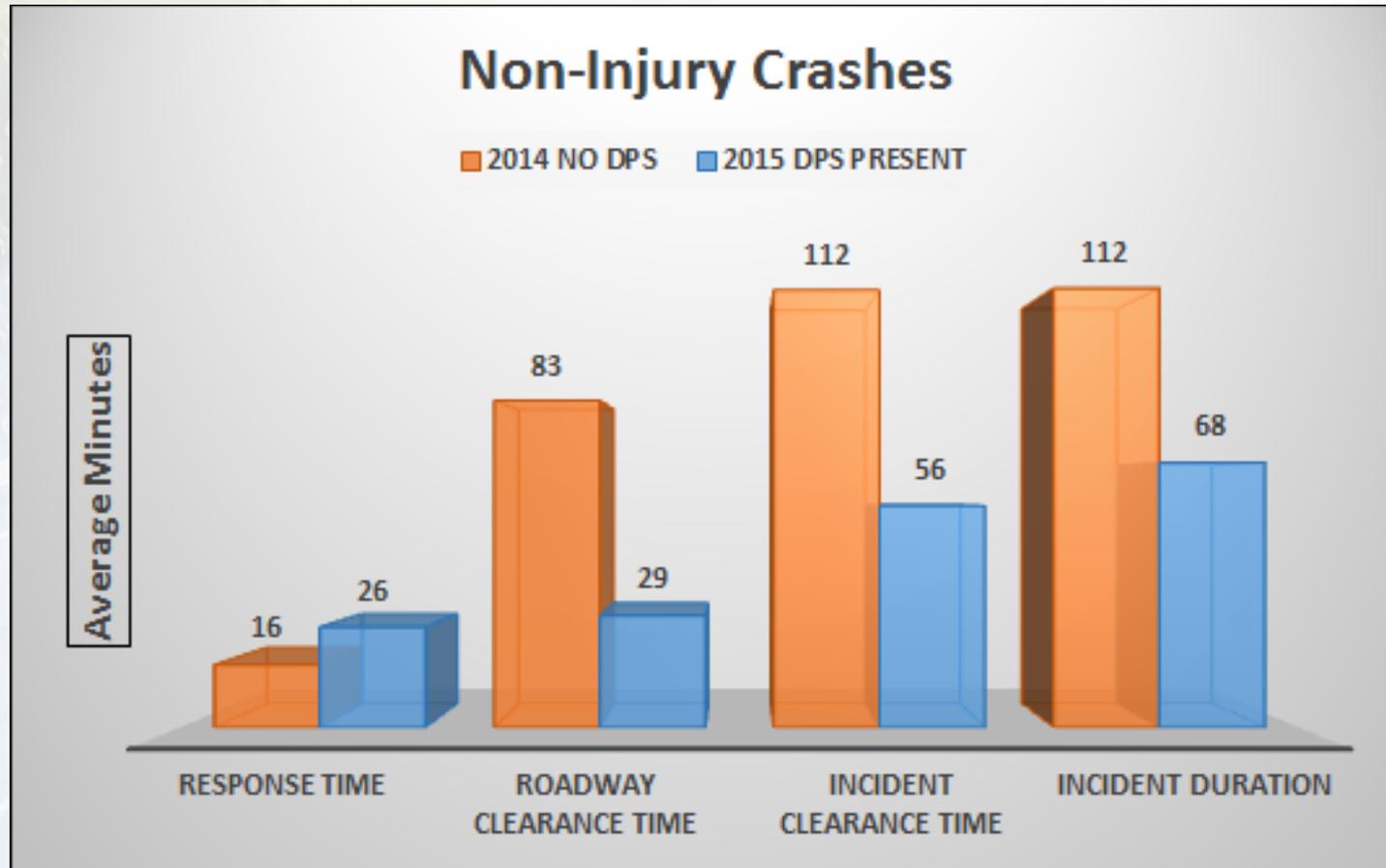
**MAG Transportation Review Committee
February 25, 2016**



Evaluation Study

- ADOT & MAG funded 3-Yr Pilot Project
 - Co-location of DPS troopers at the TOC started in October 2014
 - 3-months of staff training
 - The program fully operational in January 2015
- All crash clearance data gathered using the DPS electronic reporting system - TraCS
- Evaluation compared 9-months of BEFORE Vs AFTER performance data:
Jan-Sept 2014 Vs Jan-Sept of 2015

Freeway Crashes with No Injuries



+ 63%

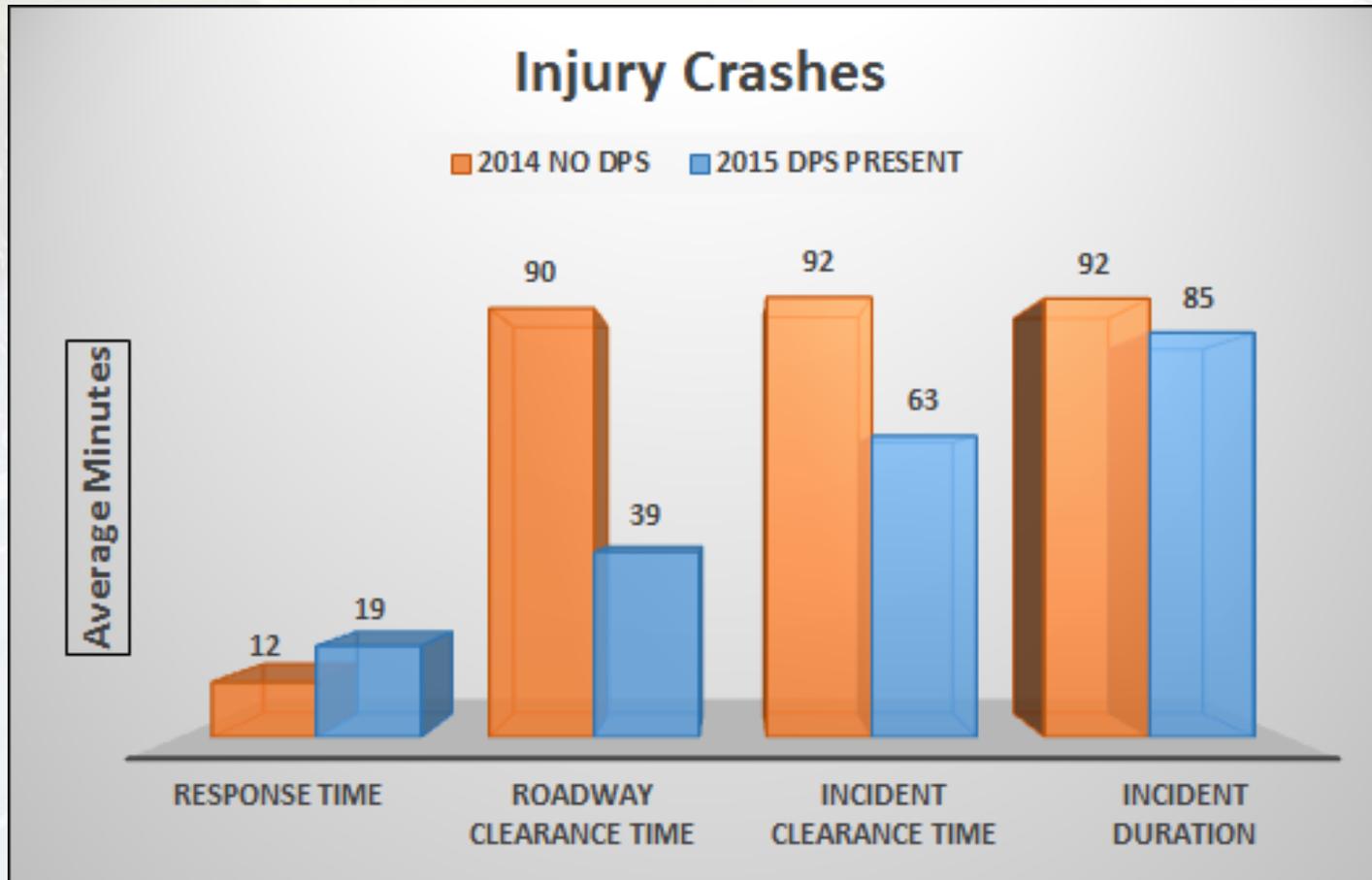
-65%

-50%

-39%

Comparison:
2014(Jan–Sept)
NO DPS
Vs
2015 (Jan-Sept)
DPS Present

Freeway Crashes with Injuries



+ 58%

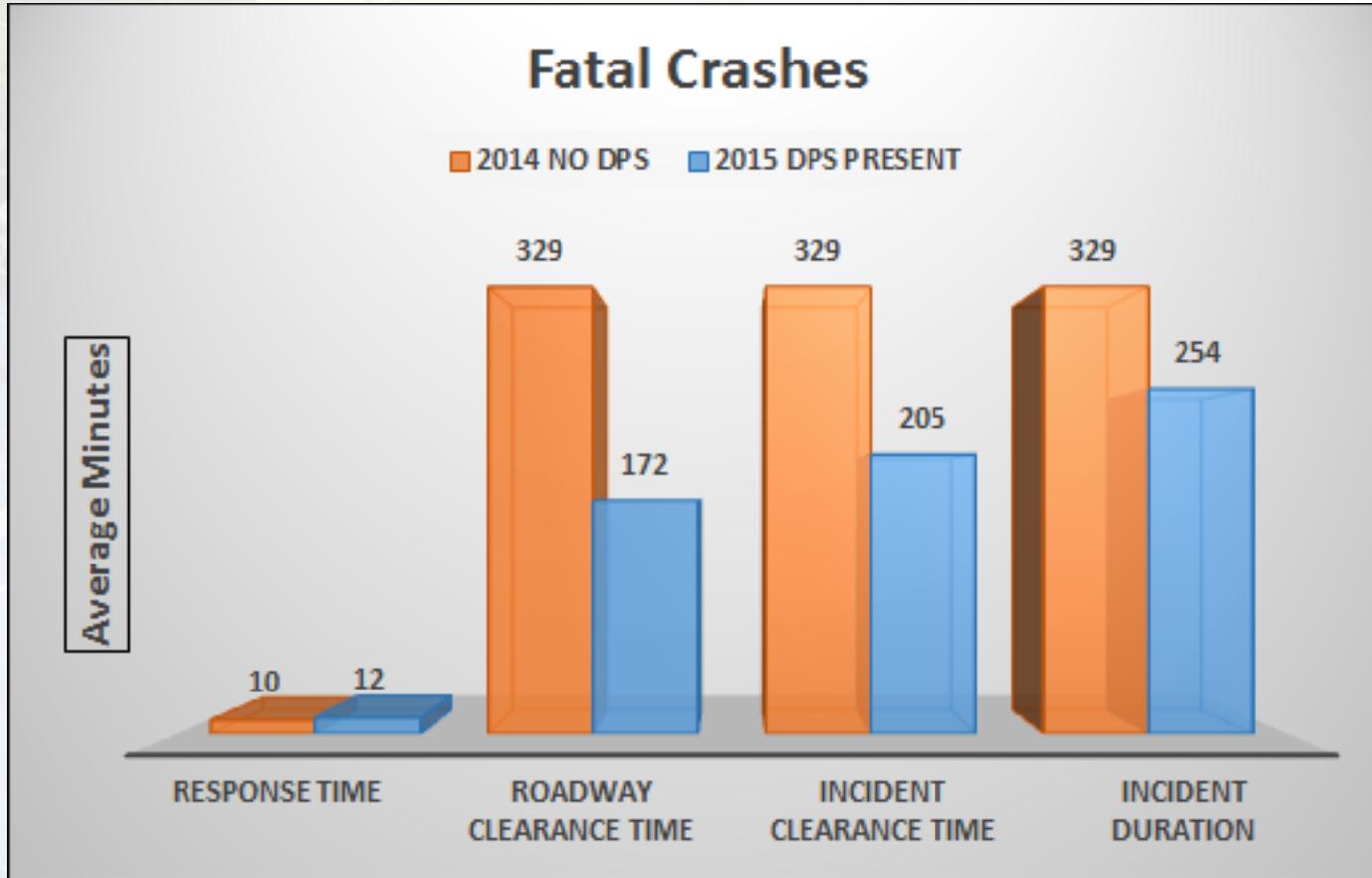
-57%

-32%

-8%

Comparison:
2014(Jan–Sept)
NO DPS
Vs
2015 (Jan-Sept)
DPS Present

Fatal Crashes on Freeways



Comparison:
2014(Jan–Sept)
NO DPS
Vs
2015 (Jan-Sept)
DPS Present

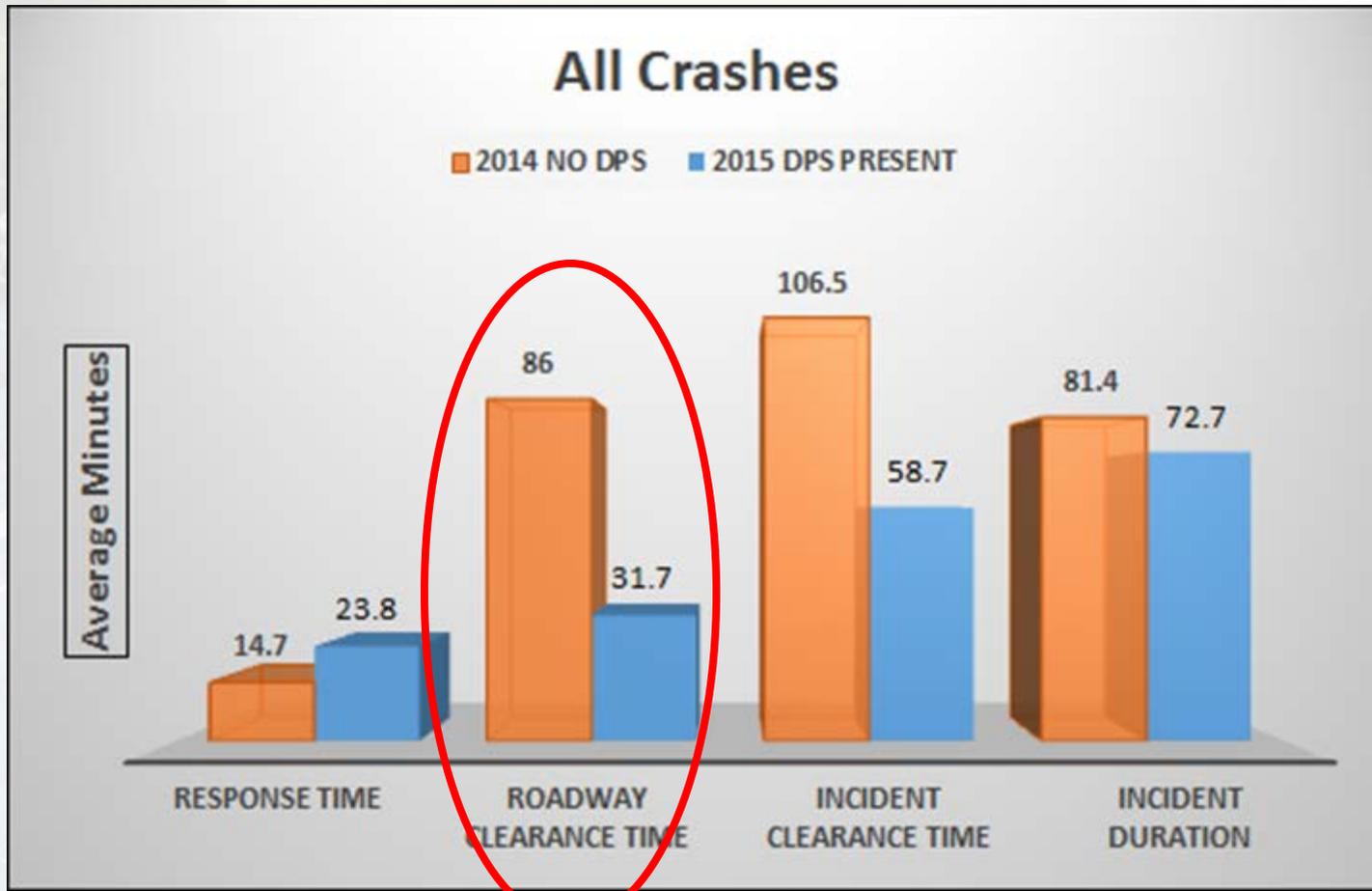
+ 20%

-48%

-38%

-23%

All Freeway Crashes



+62%

-63%

-45%

-11%

Reduced by 54 minutes

Comparison:
2014(Jan–Sept)
NO DPS
Vs
2015 (Jan-Sept)
DPS Present

Crashes Cleared by DPS “Before” Vs “After”

- **Before: 2014 Jan – Sept = 11,243 crashes**
- **After: 2015 Jan – Sept = 13,862 crashes**

An increase of 23 % for all crashes

Road deaths in Arizona increased by **19 %** in 2015 Vs 2014 (Jan-Aug)

Nationally all road deaths increased by **14 %** (Jan-Jun)

& serious injuries increased by **30 %**

Jan 19th Media Event to Announce Evaluation Results



Time Taken to Clear Freeway Crashes Drastically Reduced

Locating DPS Troopers at Traffic Center Pays Off for Motorists

The average time taken to clear a crash site on Maricopa County freeways was reduced by nearly an hour over the past year, helping traffic move more quickly, preventing secondary collisions and potentially saving lives.



The dramatic reduction in clearance times is attributed to a decision one year ago to locate Department of Public Safety (DPS) troopers at the Arizona Department of Transportation (ADOT) Traffic Operations Center (TOC).



DPS Trooper Robb Brown monitors freeway activity at the ADOT Traffic Operations Center.

Placing DPS troopers at the TOC began in late 2014 as a three-year pilot program. MAG and ADOT are jointly funding the project, with buy-in from DPS and the Federal Highway Administration (FHWA).



DPS Director Frank Milstead.

“Despite a 23 percent increase in the number of freeway crashes, the time to clear crashes of all severities was reduced between 48 and 65 percent,” said DPS Director Frank Milstead in announcing the one-year results. “While clearing severe crashes took longer than less serious incidents, they were also cleared more quickly than the year before. On average, the time taken to clear all freeway lanes at crash sites has been reduced by nearly an hour.”

ADOT Director John Halikowski said the success is a result of increased efficiency.

“The DPS troopers at the TOC have direct communication with troopers in the field. They can jointly determine the resources needed at a specific crash scene,” Halikowski said. “This prevents the need for ADOT operators to relay the information to DPS. This means we can mobilize field officers, fire-rescue, ambulances, the appropriate class of tow truck and other resources more quickly. Clearing crash scenes more quickly reduces the risk of secondary crashes, furthering our important goal of public safety.”

MAG Chair W.J. “Jim” Lane, mayor of Scottsdale, noted that the reduction in traffic delay not only saves lives but saves money in terms of potential lost productivity. “MAG estimates that the region has saved \$165 million in lost productivity over the first year of the pilot project,” said Mayor Lane. “These findings

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Estimated Economic Benefit to MAG Region

- Regional Traffic Simulation Model -DynusT
 - Compared total traffic delay experienced by travelers in 2014 & 2015
 - Used observed crash numbers & actual time taken to clear crashes
- Estimated Traffic Delay on Regional Road System
 - In 2015, the total traffic delay experienced by travelers was reduced by nearly **8.4 million vehicle-hours**
 - Equivalent to **\$165 million** in savings
 - Does not include potential savings from secondary crashes reduced
- Cost of the program: \$450,000 in Year 1, \$425,000/Yr in Years 2 & 3

Summary

- Despite a 23% increase in the number of freeway crashes, the time to clear all freeway lanes at crash sites have been reduced by nearly one-hour
- Overall savings due to reduced traffic delay during 2015 is estimated at \$165 million
- Year#1 Benefit:Cost = 368:1

Pilot Project to Co-locate DPS Troopers at the ADOT Traffic Operations Center

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Department of Public Safety

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