

Evaluation of DPS Co-location at the ADOT Traffic Operations Center



MAG Transportation Policy Committee
June 20, 2018

Initiation of Pilot Project in 2014

Problem

Crashes causing extensive traffic delays on the urban freeway system

Solution

Quick clearance of crashes through efficient coordination

Pilot Project funded by MAG/ADOT

- Co-locate DPS troopers at the ADOT Traffic Operations Center
 - Ability to communicate directly with DPS troopers in the field & ADOT operators.
 - Ability to deploy needed resources quickly
 - Field officers
 - Fire/rescue/medical
 - Request appropriate class of tow truck and other resources
- Quick clearance to reduce delay, risk of secondary crashes & improve public safety.

Evaluation Process

Start of Project: October 2014
DPS fully operational: January 2015
End of Project: September 2017

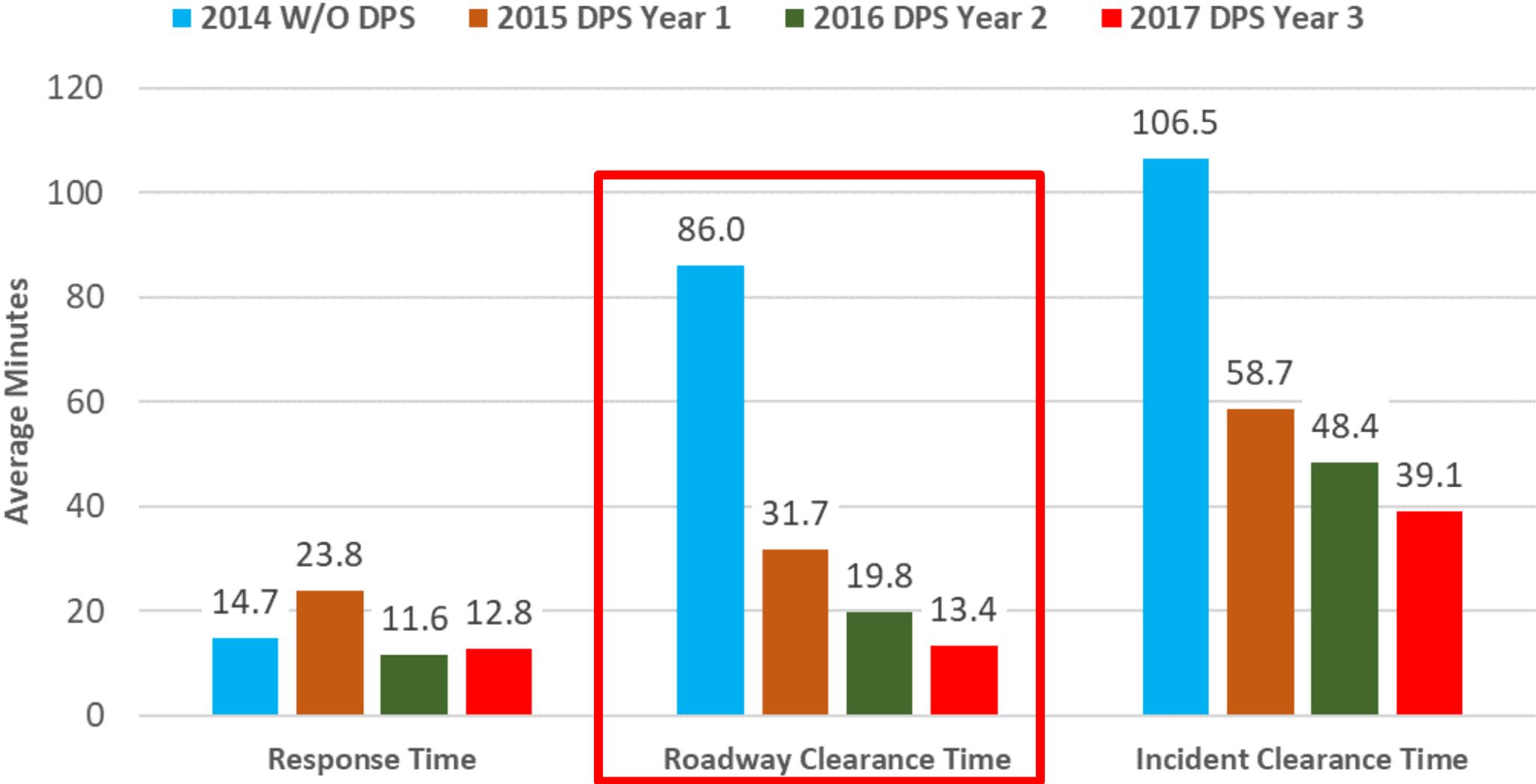
Evaluation Periods

Data from January to September were used in the evaluation

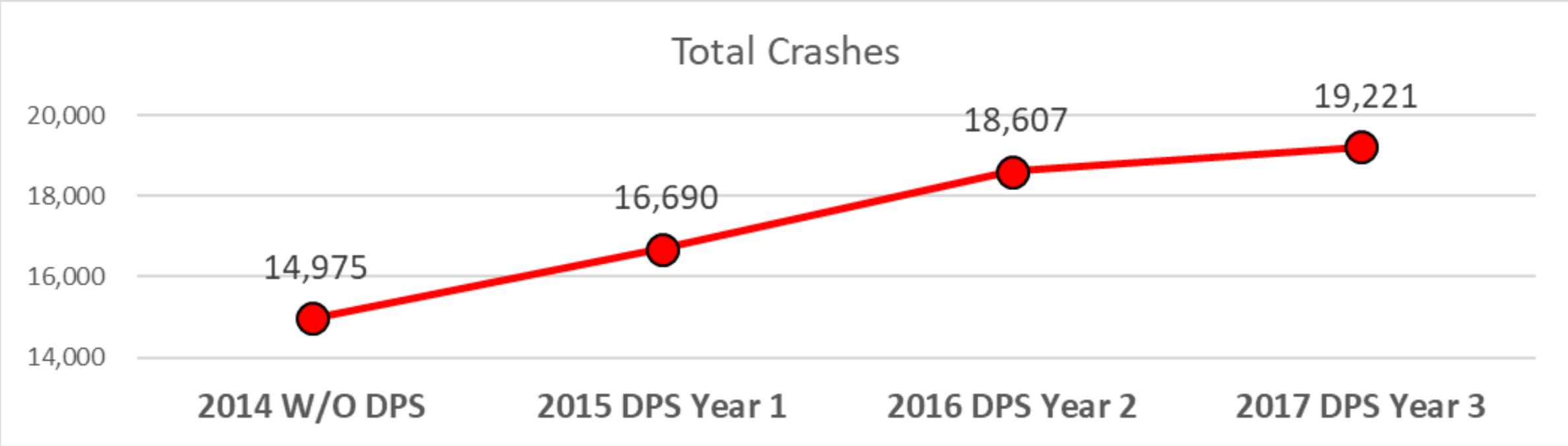
- 2014: Before Condition
- 2015: Year 1
- 2016: Year 2
- 2017: Year 3

Evaluation Results

Freeway Clearance Times



Evaluation Results



Economic Benefit to MAG Region

- Traffic delay estimated using a calibrated traffic simulation model
- During Year 1 traffic delay was reduced by
 - **6.7 million person-hours = \$112 million total savings**
- Year 1 Pilot Project cost = \$450,000
 - **Benefit-Cost Ratio 250:1**
- Estimated Benefit-Cost Ratio for all 3 years = **258:1**
\$336 million total savings

Long Term Impact of Pilot Project

- Success of Pilot Project has resulted in:
 - ADOT permanently funding DPS colocation at TOC
 - 24/7 coverage statewide for improved traffic incident management
 - Benefits all of Arizona
- One of best proven investments by ADOT & MAG for improving freeway traffic operations
- Relatively small investments to improve operations can produce huge economic payoff for region
- Systems Management and Operations Plan (currently being finalized)
 - \$85 million for 5-Yrs Vs. \$2.7 billion in 5-Yr MAG TIP