

Performance Evaluation for the Transportation Management Center Expansion

Austin Transportation Department
Arterial Management Division



Background

- City of Austin TMC opened in 2001
- City's March 2015 Traffic Congestion Action Plan identified need for expanded TMC
- In April 2016, the City contracted with Kimley-Horn and Associates to expand TMC operations
- UT Center for Transportation Research conducted evaluation (using existing UT/CoA contract)



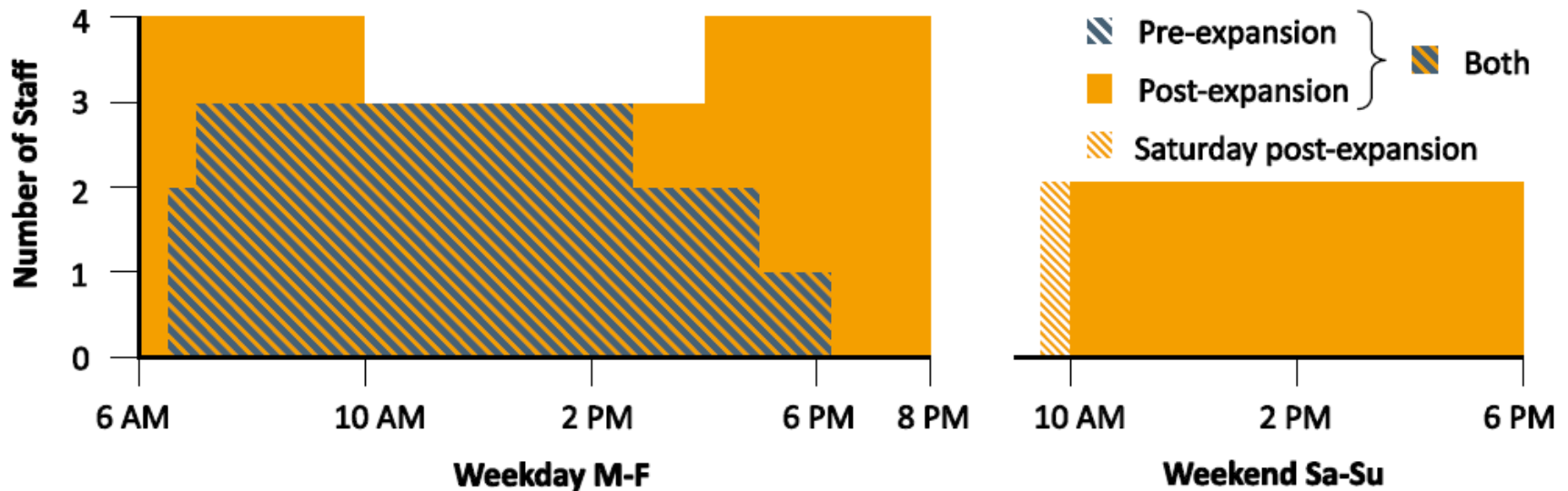
Primary goals of expansion

- Increase staff coverage and flexibility
- Increase hours of operation
- Improve operational efficiency
- Increase coverage of special events
- Improve incident management
- Improve transportation system performance



Hours and Staffing

- Total person-hours increased by nearly 100%
- Weekend coverage
- Extended weekday coverage



Benefits Quantified

April-December 2016

1. Lane-Blocking Responses
2. Expansion of the Annual Signal Retiming program
3. Special-Case Retiming



1. Lane Blocking Responses

- Responded to 36 events
 - signal timing changes, traveler information, inter-agency coordination, dispatching inspectors
- Saved 15,120 hours of delay
- \$337,478 total cost savings



2. Expansion of the Annual Signal Retiming Program

- Estimated 87 signals retimed due to TMC expansion
- Now meeting state-of-practice guidelines for retiming frequency
- Saved 65,765 hours of delay
- \$1,467,893 cost savings



3. Special Case Signal Retiming

- Retimed Lamar Blvd. at 5th and 6th Streets during mid-day period
- Saved 121,943 hours of delay
- \$2,721,760 cost savings



Overall Benefit/Cost Analysis

April-December 2016

Activity	Benefit to Public
Lane-blocking responses	\$337,478
Expansion of the annual signal retiming program	\$1,467,893
Special case signal retiming	\$2,721,760
TOTAL	\$4,527,131
TMC expansion cost	\$1,237,329
Benefit/Cost Ratio	3.7



Next Steps

- Enhance traveler information tools
- Firmware deployment
- Automated identification of malfunctioning detectors
- Inter-agency collaboration to achieve One System
- Increased performance measurement in collaboration with UT CTR
 - Expanded 2017 annual report
 - Monthly reports



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