

Traffic Incident Management Capability Maturity Self-Assessment 2019 Results

Talking Traffic Incident Management Webinar

Wednesday, December 18, 2019

1:30 – 3:00 p.m.



U.S. Department
of Transportation

**Federal Highway
Administration**

Traffic Incident Management Capability Maturity Self-Assessment

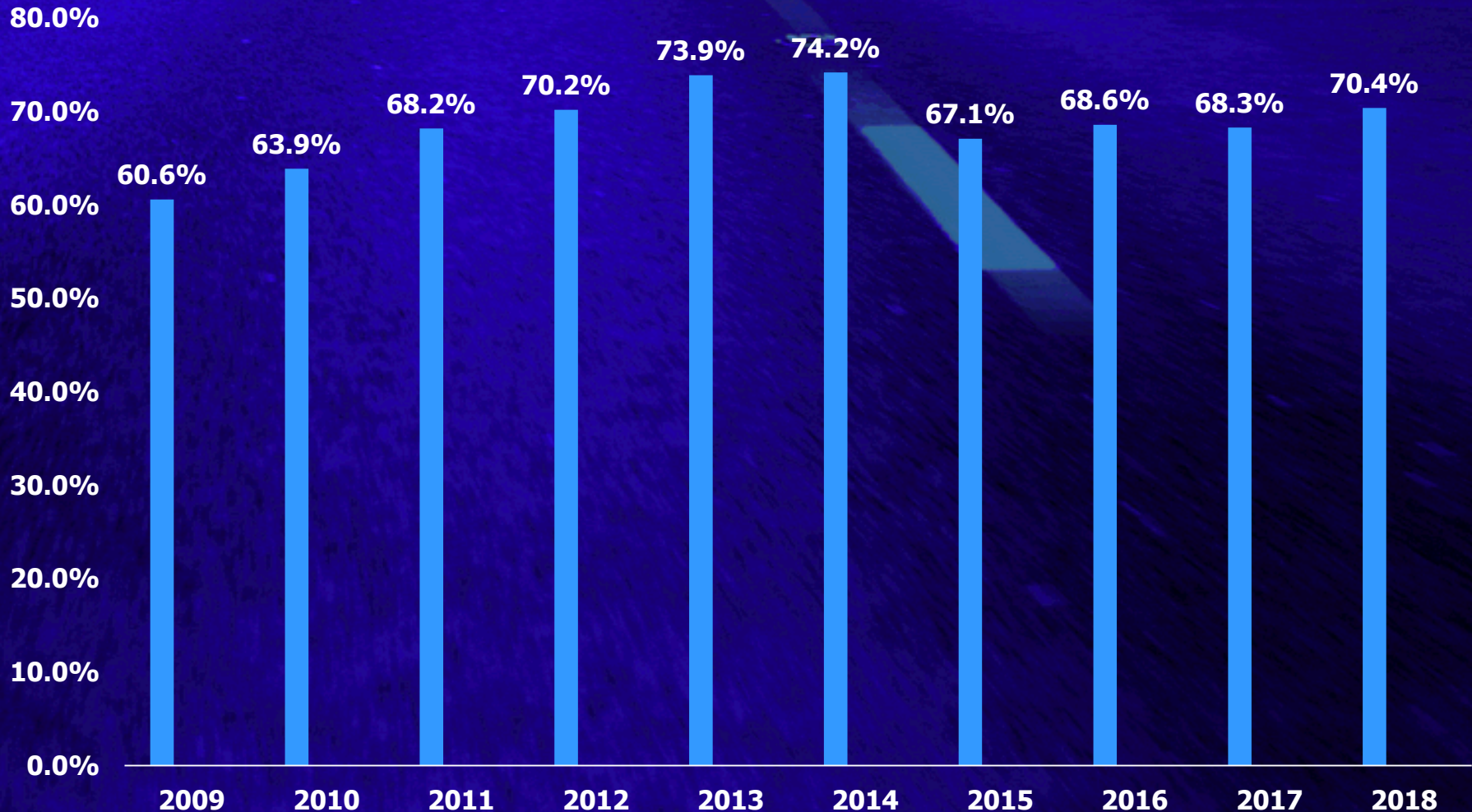
- **This PowerPoint (PPT) presentation describes the findings of the 2019 Federal Highway Administration (FHWA) Traffic Incident Management (TIM) Capability Maturity Self-Assessment (CM SA).**

History of the TIM CM SA

- **Originally developed by FHWA in 2002 as a way to assess current state-of-practice in TIM and for local/regional/State TIM programs to benchmark performance.**
- **Scores from original assessments in 2003-2004 used as Baseline.**
- **Major revisions to the TIM CM SA were completed in 2007, 2011, and 2015.**

A Decade of TIM CM SA Scores

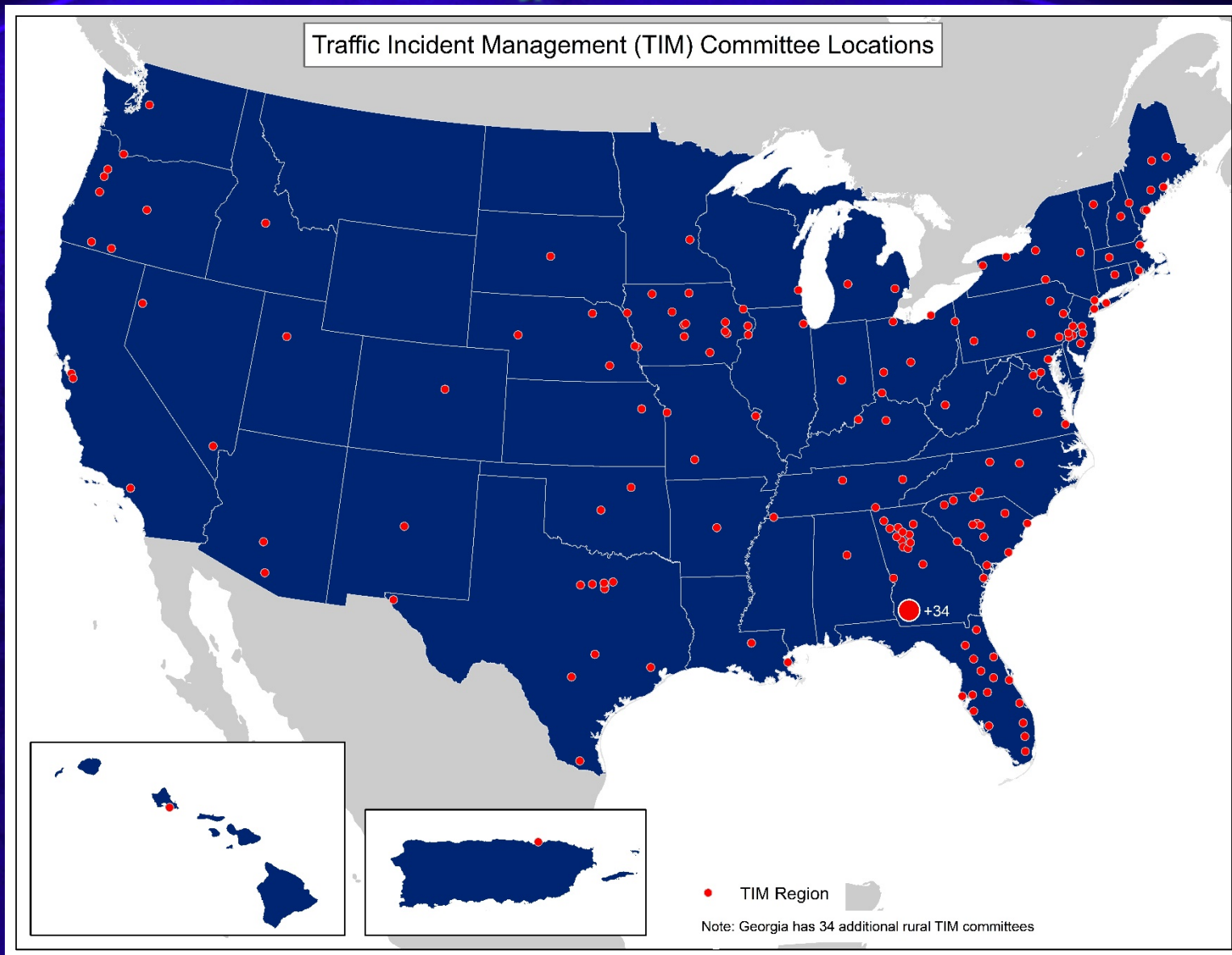
**TIM CM SA National Scores
2009 - 2018**



Who Should be Completing the TIM CM SA?

- **Top 75 metropolitan (metro) areas.**
- **States without a top 75 metro.**
- **All TIM Committees.**

Map of TIM Program Locations

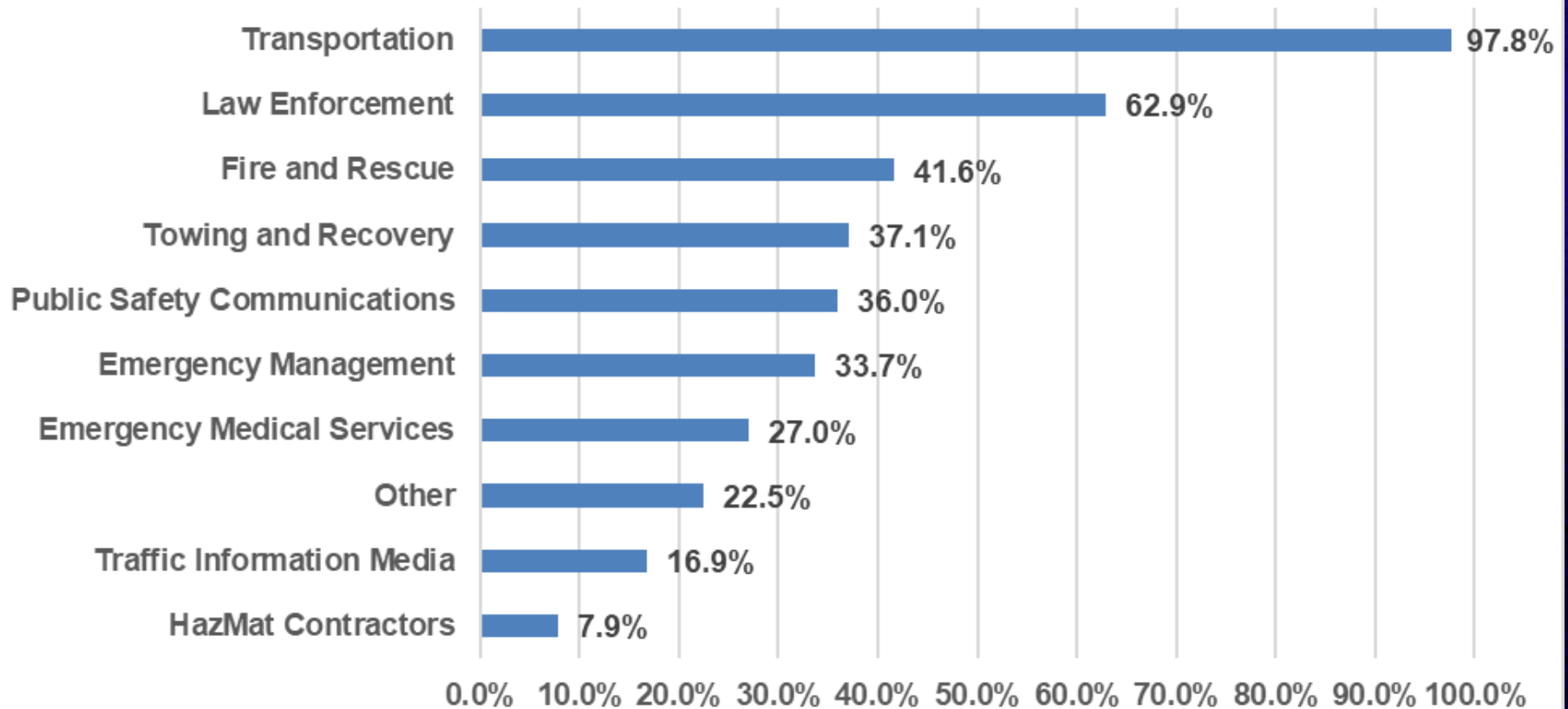


Who is Completing the TIM CM SA?

- The TIM CM SA is intended to be conducted as a group exercise with the various TIM stakeholders coming to consensus on the scores for each question. Often this is done at a TIM team meeting or other event.
- The TIM CM SA asks participants to indicate which TIM stakeholder groups were involved in completing the 2019 TIM CM SA for their respective areas.
 - ◆ Law Enforcement.
 - ◆ Fire and Rescue.
 - ◆ Emergency Medical Services.
 - ◆ Transportation.
 - ◆ Public Safety Communications.
 - ◆ Emergency Management.
 - ◆ Towing and Recovery.
 - ◆ Hazardous Materials Contractors.
 - ◆ Traffic Information Media.
 - ◆ Other (please specify).

TIM CM SA Participants

TIM Stakeholder Participation in Completing 2019 TIM CM SA



Key Findings – 2019 TIM CM SA

- **Total of 94 locations submitted during 2019 TIM CM SA cycle.**
 - ◆ **Down slightly from 98 submitted in 2018.**
- **Overall average score 73.3 out of a possible 100, 44.6% increase over baseline.**
 - ◆ **Top 40 Metro areas – 77.5%.**
 - ◆ **Top 75 Metro areas – 75.5%.**
 - ◆ **Non-Top 75 Metro areas – 68.5%.**

Scores Up in 2019

- **Reverses slight downward trend experienced in 2017.**
- **2019 score now highest since major revision in 2015.**

Key Findings – 2019 TIM CM SA

Highest Scoring Questions – 2019

- 1. Use of Transportation Management Center/Transportation Operations Center resources to coordinate detection, notification and response.**
- 2. Policy for Removal of Abandoned Vehicles.**
- 3. Authority to override decision to utilize responsible party's hazmat contractor and call in other resources.**
- 4. TIM considered/incorporated into planning for construction, work zones, special events, and weather.**
- 5. Towing and recovery procedures/rotation list policies deploy resources based on type/severity of incident.**

Key Findings – 2019 TIM CM SA (continued)

Lowest Scoring Questions – 2019

- 1. Established performance targets for reducing secondary incidents.**
- 2. Use of secondary crash data to influence TIM operations.**
- 3. Established performance targets for Incident Clearance Time (ICT).**
- 4. Use of ICT performance data to influence operations.**
- 5. How is crash data for number of secondary crashes collected?**
- 6. Policies or procedures in place for signal timing changes to support traffic management during incident response.**

Lowest Scoring Questions Showing Improvement

Lowest Scoring Questions from the 2019 TIM CM SA	2019 Average Score	Percent Change from 2018 Average Score
27. Has the TIM program established performance targets for a reduction in the number of Secondary Crashes?	1.55	9.9
28. How does your agency use Secondary Crash performance data to influence your TIM operations?	1.94	4.9
23. Has the TIM program established performance targets for ICT?	2.07	11.3
24. How does your agency use ICT performance data to influence your TIM operations?	2.20	2.8
26. How is data for the number of Secondary Crashes collected?	2.37	11.8
54. Are there policies or procedures in place for signal timing changes to support traffic management during incident response?	2.37	1.3

Percentage of TIM Responders Trained

- Since Question 13 was first scored in 2015, there has been an increasingly higher threshold for percentage of responders trained.
- Increases to align with numbers of responders receiving training.
- Over 431,000 responders trained nationally.
 - ◆ Represents 37.3% of responders (as of 9/2019 FHWA data).

Percentage of Responders Trained

Scoring Guidance	2015	2019
Score 1 if:	Less than 5%	Less than 15%
Score 2 if:	Between 6-7%	Between 16-30%
Score 3 if:	Between 8-9%	Between 31-45%
Score 4 if:	Over 10%	Over 45%
AVERAGE SCORE	2.82	2.78

More than 30 percent of locations scored Question #13 a 4 – indicating that 45 percent or more of their responders have received the training.

TIM Performance Measures

- **Every Day Counts initiative focuses on TIM Performance Measures (TIM PM).**
- **Modifications to questions on TIM PM (Q17-Q28) in 2017.**
- **Each of three TIM PMs are now queried separately.**
 - ◆ **Roadway Clearance Time (RCT).**
 - ◆ **Incident Clearance Time (ICT).**
 - ◆ **Secondary Crashes.**

Using TIM PM Data to Influence Operations

TIM PM Questions from the 2019 TIM CM SA	2019 Average Score	Percent Change from 2018 Average Score	2019 Change from Baseline
20. How does your agency use RCT performance data to influence your operations?	2.13	5.2	10.0%
24. How does your agency use ICT performance data to influence your operations?	2.20	2.8	-0.5%
28. How does your agency use Secondary Crash performance data to influence your operations?	1.94	4.9	-12.2%

Scores improved from 2018 and in 2019, Use of Incident Clearance Time performance data to influence operations has almost returned to Baseline.

Better Resourced Programs = Increased Capability for Collecting/Analyzing/Using TIM PM Data

TIM PM Questions from the 2019 TIM CM SA	Top 40	Top 75	Non-Top 75
20. How does your agency use RCT performance data to influence your operations?	2.8	2.6	2.0
24. How does your agency use ICT performance data to influence your operations?	2.5	2.3	1.9
28. How does your agency use Secondary Crash performance data to influence your operations?	2.0	2.0	1.8
8. Are funds available for TIM activities?	3.2	3.1	2.7

New Support Question

New Non-Scored Supplemental Question Added in 2018

Question	Score 1 if:	Score 2 if:	Score 3 if:	Score 4 if:
52a. Describe the level of public safety Computer Aided Dispatch (CAD) integration with Transportation Management Center/Transportation Operations Center (TMC/TOC) software and systems.	Public safety agencies pass information to the TMC/TOC via telephone or email and there is little or no use of public safety agency CAD information, data, or screens by TMC/TOC.	Public safety agency CAD information is viewed by TMC/TOC personnel on a public-facing web page or similar mechanism; requires retyping to input into TMC/TOC software.	Public safety agency CAD information is viewed by TMC/TOC personnel on a dedicated computer system or monitor; requires retyping or cut-paste operations to input into TMC/TOC software.	Public safety agency CAD electronically transmits even data to the TMC/TOC software and can populate data fields (at a minimum date, time, location and type event).

Question 52a was introduced in 2018 as a non-scored supplemental question. While a score was not required in the 2019 TIM CM SA, all of the 94 respondents scored their program and the average score was 2.48, up from 2.29 in 2018.

Scores Remain Below Baseline

Questions from the 2019 TIM CM SA that remain below baseline.	2019 Average Score	Percent Change from 2018 Average Score	2019 Change from Baseline
28. How does your agency use Secondary Crash performance data to influence your operations?	1.94	4.9	-12.2%
42. For incidents involving a fatality, is there a procedure for the removal of the deceased prior to Medical Examiner arrival?	2.43	-12.3	-4.0%
13. What percentage of TIM responders in the region identified as needing training have received 4-hour SHRP2 TIM Responder Training or equivalent?	2.78	6.5	-1.4%
44. Is there a procedure in place for removal of abandoned vehicles?	3.45	0.3	-0.6%
24. How does your agency use ICT performance data to influence your operations?	2.20	2.8	-0.5%

Program Areas of Success

Questions from the 2019 TIM CM SA that show success.	2019 Average Score	Percent of TIM CM SA Scoring 3 or Higher
51. Are TIM stakeholders aware of and actively utilizing (TMC/TOC) resources to coordinate incident detection, notification and response?	3.53	94.7
40. Does at least one responding agency have the authority to override the decision to utilize the responsible party's Hazmat contractor and call in other resources?	3.40	91.5
39. Is there a policy in place that clearly identifies reportable types and quantities, and appropriate Hazmat response?	3.30	91.5
34. Do TIM responders routinely utilize the Incident Command System, specifically Unified Command, while on scene?	3.24	90.4
6. Are the TIM response roles and responsibilities of public and private sector TIM stakeholders mutually understood?	3.23	90.4
52. What TIM data is captured via TMCs and/or public safety CAD systems and is it shared with other disciplines for real-time operational purposes?	3.14	90.4

How to Use TIM CM SA Scores

TIM CM SA participants are provided with guidance on how to move from one level of maturity to the next.

Sample Guidance from the 2019 TIM CM SA.

49. Are there mutually understood procedures/guidelines in place for use of emergency-vehicle lighting?

Actions to Progress from Level 1 to 2

i. Gather and review existing procedures/guidelines related to use of emergency-vehicle lighting. Identify needs and/or best practices.

Actions to Progress from Level 2 to 3

ii. Develop and document a standard procedure/ guideline for emergency-vehicle lighting that is consistent with the National TIM Responder Training Program.

Actions to Progress from Level 3 to 4

iii. Distribute the standard procedure/guideline to all TIM stakeholders.
iv. Promote uniform and consistent procedure/guideline use through multi-agency training and exercises.
v. Regularly review and update the procedure/guideline.

Using the TIM CM SA Results

Score your local TIM program.

Question	Score 1 if:	Score 2 if:	Score 3 if:	Score 4 if:
<p>5. Is there a full-time position within at least one of the participating agencies with responsibility for coordinating the TIM program as their primary job function?</p>	<p>No agency has assigned responsibility for coordinating the TIM program to a person or position.</p>	<p>Responsibility for coordinating the TIM program has been assigned to a position within a participating agency. However, TIM is just one of their many job responsibilities and they have limited time to dedicate to the program.</p>	<p>Responsibility for coordinating the TIM program has been assigned to a position within a participating agency and 50% or more of their time is dedicated to TIM.</p>	<p>There is a full-time position within one participating agency that is dedicated to coordinating the TIM program.</p>

Using the TIM CM SA Results

Guidance from the 2019 TIM CM SA.

5. Is there a full-time position within at least one of the participating agencies with responsibility for coordinating the TIM program as their primary job function?

Actions to Progress from Level 1 to 2

- i. Identify an agency that is willing to assign responsibility for coordinating the TIM program to one of their employees or contractors.
- ii. Develop a formal job / position description that outlines the responsibilities of a TIM program coordinator. Document the TIM business case to support the need for the position.

Actions to Progress from Level 2 to 3

- iii. Fill and/or assign a part-time (50%) TIM program coordinator position to either agency or contractor staff.

Actions to Progress from Level 3 to 4

- iv. Fill and/or assign a full-time TIM program coordinator position to either agency or contractor staff.

Using the TIM CM SA Results

Score your local TIM program.

Question	Score 1 if:	Score 2 if:	Score 3 if:	Score 4 if:
44. Is there a procedure in place for removal of abandoned vehicles?	There is no procedure in place for removal of abandoned vehicles.	Individual agencies have procedures regarding the removal of abandoned vehicles but there is no consistency and the length of time vehicles are allowed to sit varies.	A standard procedure is in place regarding the removal of abandoned vehicles but not all response agencies are aware of it.	A procedure is in place for the removal of abandoned vehicles. The procedure is understood by all TIM stakeholders. The procedure is regularly reviewed and updated.

Using the TIM CM SA Results

Guidance from the 2019 TIM CM SA.

44. Is there a procedure in place for removal of abandoned vehicles?

Actions to Progress from Level 1 to 2	Actions to Progress from Level 2 to 3	Actions to Progress from Level 3 to 4
<p>i. Gather and review existing laws and procedures related to the removal of abandoned vehicles. Identify needs and/or best practices.</p>	<p>ii. Develop and document a standard procedure for the timely removal of abandoned vehicles that includes provisions for the expedited removal of vehicles in defined emergency situations.</p> <p>iii. Review existing abandoned vehicle laws for applicability and effectiveness and draft revisions as appropriate.</p>	<p>iv. Distribute the standard procedure to all TIM stakeholders.</p> <p>v. Promote uniform and consistent procedure use through multi-agency training and exercises.</p> <p>vi. Regularly review and update the procedure.</p>

High-Scoring TIM Programs

Highest Scoring Strategic*	Highest Scoring Tactical*	Highest Scoring Support*
Atlanta, GA	Atlanta, GA	Alachua-Bradford, FL
Cincinnati, OH	Cincinnati, OH	Louisville, KY
Columbus, OH	Miami-Dade, FL	Philadelphia, PA
Louisville, KY	Milwaukee, WI	San Bernardino, CA
Miami-Dade, FL	San Francisco, CA	San Diego, CA
	Seattle, WA	
	Tucson, AZ	

*Locations are listed alphabetically.

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QUESTIONS

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