



## BACKGROUND

### Motivation

DOT's highway construction project has a significant impact on **public safety and convenience**, and **construction schedule** plays a vital role in ensuring on-time project delivery. DOT's **Standard specifications** serve as the basis for project schedule control, establishing minimum requirements for the contractor schedule quality, and allowing DOTs to effectively communicate and manage project schedule performance. However, **contractor schedule requirements** stipulated in the Standard specifications vary across DOTs causing inconsistent contractor schedule quality.

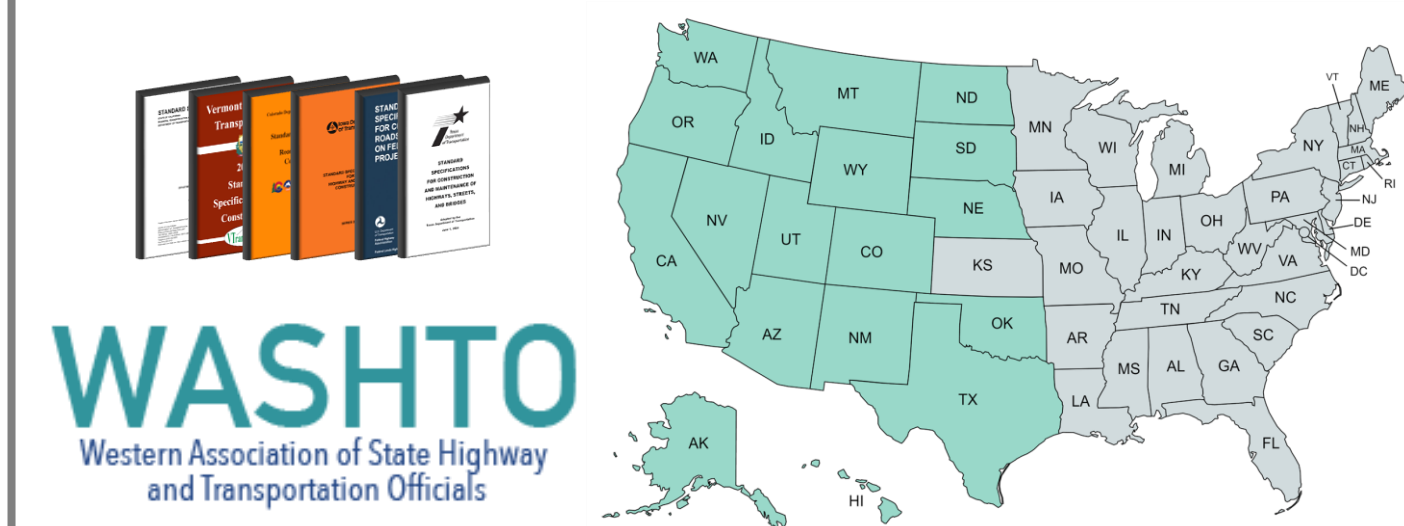
### Purpose

To assess **DOT's contractor schedule requirements** stipulated in their Standard specifications and provide a **structured reference table** to benchmark their Standard specifications.

### Objectives

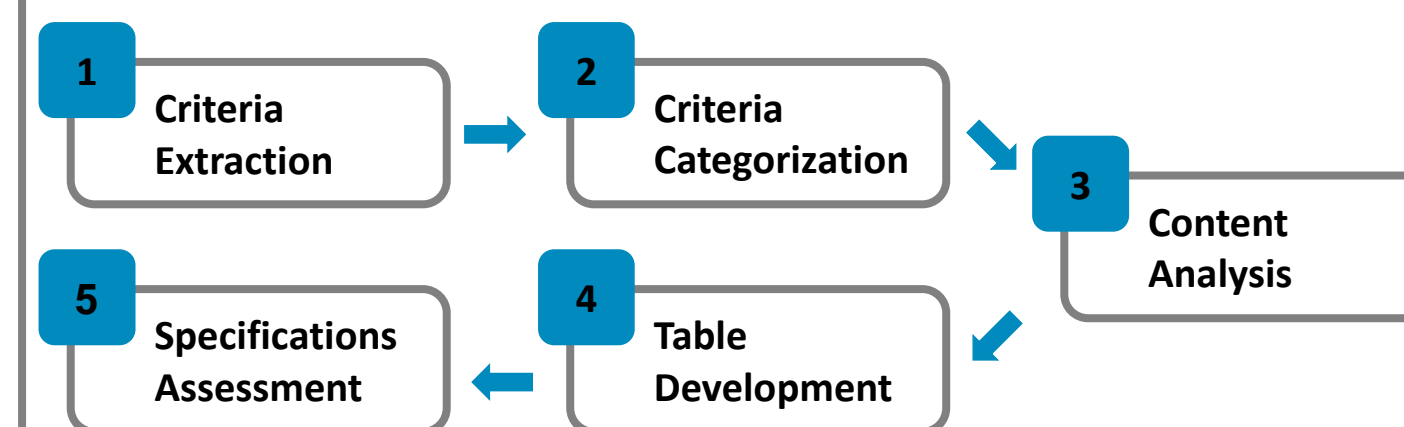
1. **Extract key** schedule management criteria
2. Develop **schedule assessment criteria table**
3. **Assess 18** Western Association of State Highway and Transportation Officials (**WASHTO**) DOTs' Standard Specifications

## DATA COLLECTION



Schedule provisions under 18 WASHTO DOTs' Standard specifications were obtained and analyzed.

## METHODS



## FINDINGS

### Schedule Assessment Criteria Table

#### 1. General Requirements

- 1.1. Meetings
- 1.2. Contract Time Computation
- 1.3. Schedule Level Classifications

#### 2. Preconstruction Schedule Submission Requirements

- 2.1. Schedule Type
- 2.2. Schedule Format

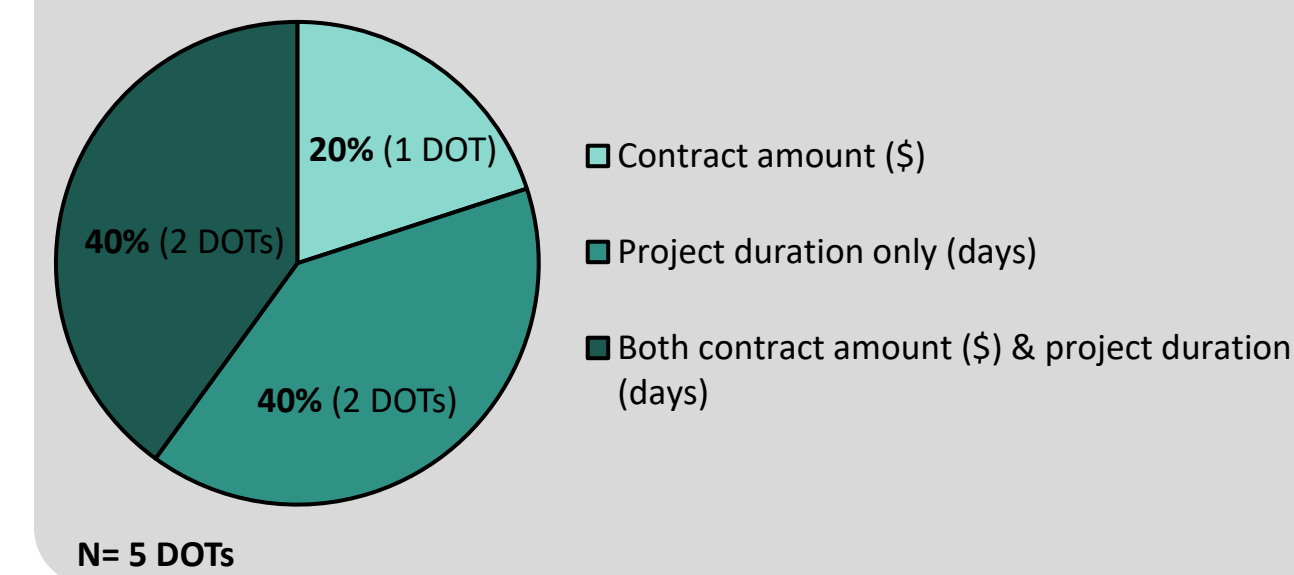
#### 3. Construction Schedule Submission Requirements

- 3.1. Schedule Type
- 3.2. Schedule Format
- 3.3. Supplemental Submittal
- 3.4. Progress Schedule Submission Frequency
- 3.5. Unsatisfactory Progress
- 3.6. Time Impact Analysis

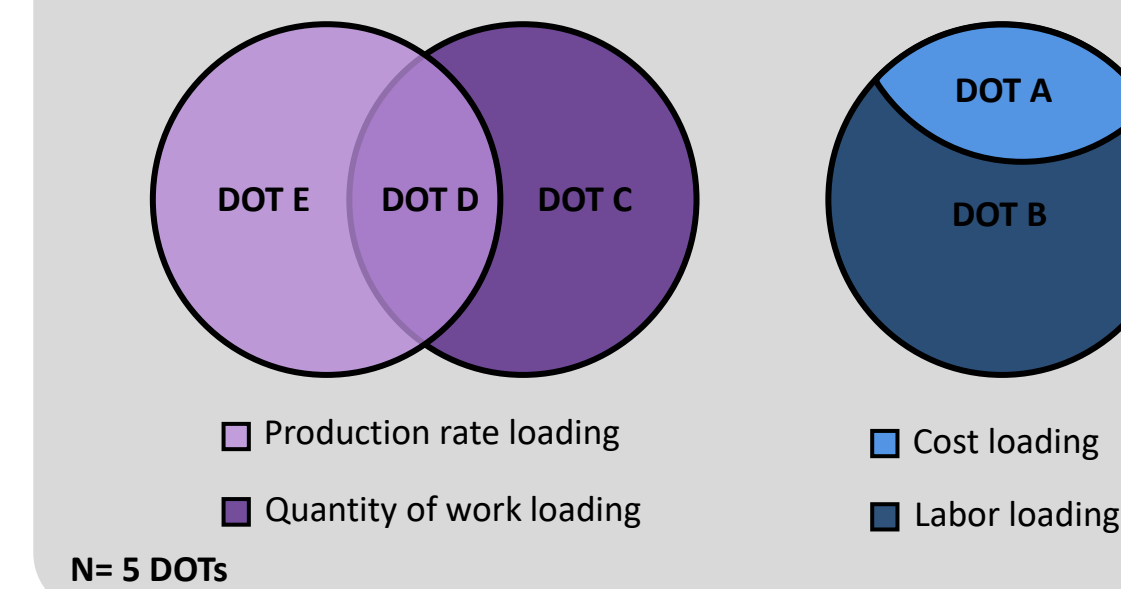
#### 4. Schedule Technical Requirements

- 4.1. Scheduling Software Designation
- 4.2. Schedule Development Guidelines
- 4.3. Schedule Setting Instructions

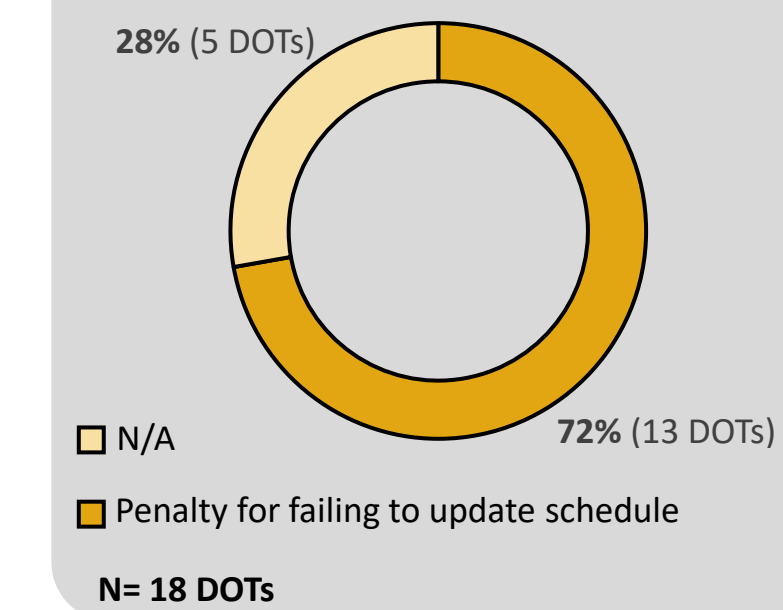
### Schedule Level Classifications



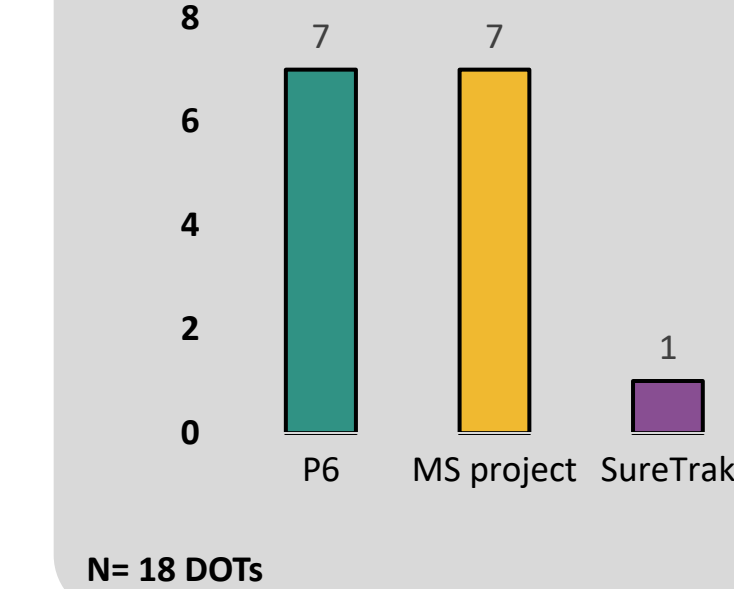
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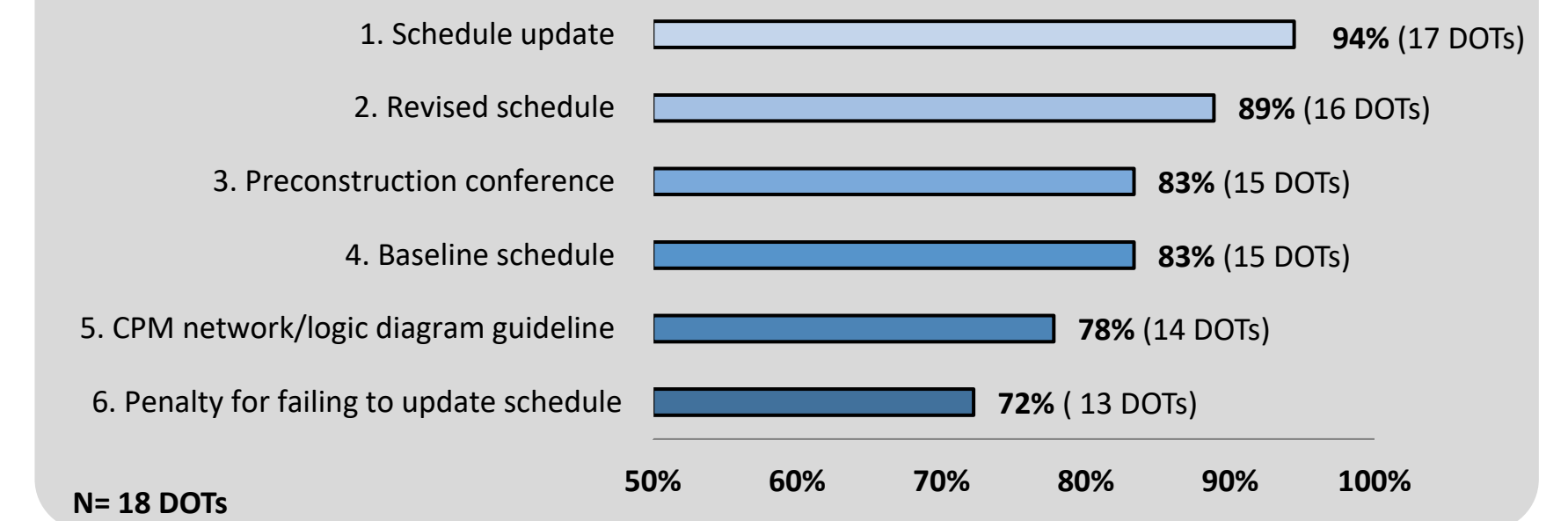
### Schedule Penalty



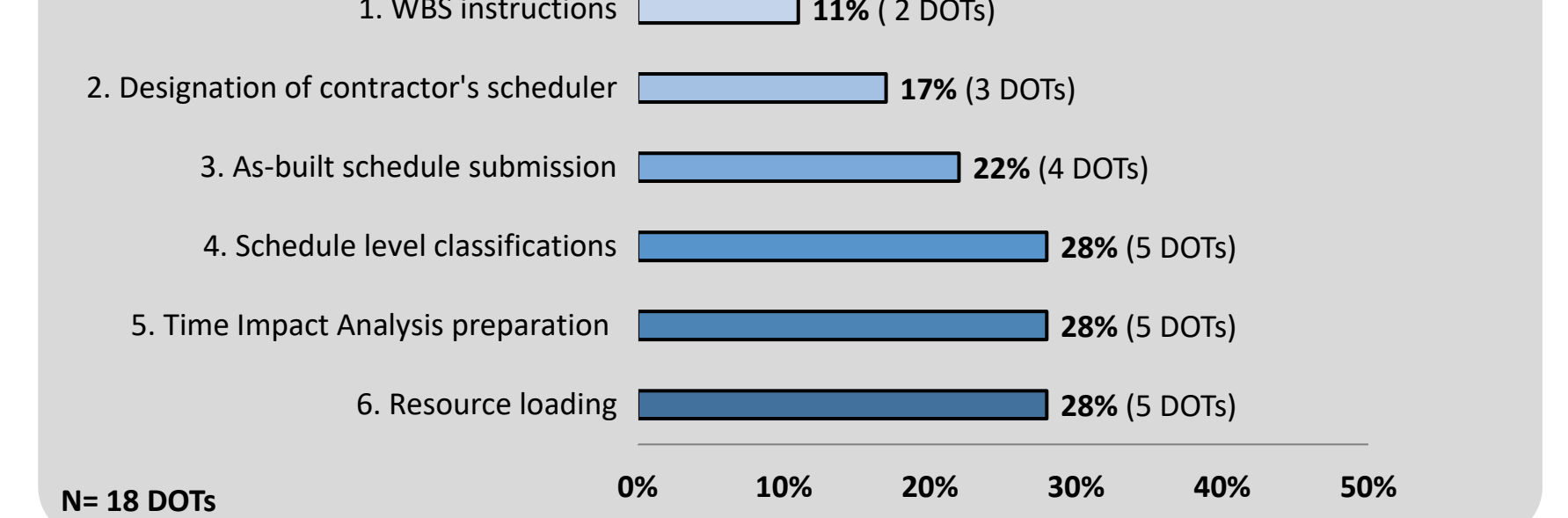
### Schedule Software Designation



### High-Frequency Items



### Low-Frequency Items



### Inconsistent Schedule Type (Example from 2.1. Schedule Type)

State	Initial Schedule & Preliminary Schedule	Baseline Schedule	Progress Schedule
DOT A	X	X	X
DOT B	X	X	Progress Schedule
DOT C	X	Initial Schedule	Progress Schedule
DOT D	X	Initial Progress Schedule	Progress Schedule
Actual Terms			
DOT E	Preliminary Schedule (90 days look-ahead)	Baseline Schedule	Progress Schedule
DOT F	Preliminary Schedule (For the first 60 calendar days)	Baseline Schedule	Schedule Update
DOT G	Initial Schedule (60 days look-ahead)	X	Detailed Schedule
DOT H	Initial Schedule (60 days look-ahead)	X	X

## CONCLUSIONS

### Summary

- Analyzed current WASHTO DOT's Standard Specifications and identified gaps among their stipulation with the key schedule requirements extracted from the literature.

### Contributions

- Developed 14 schedule assessment criteria under the schedule review process and 48 items from the DOT's schedule specifications were itemized.
- Provided DOTs with a reference to benchmark their current schedule provision for improvement.

## ACKNOWLEDGMENT

This research has been published in the ASCE's Construction Research Congress 2022 conference paper.

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