Crashes and Accidents in Work Zones: Extent and Characteristics
The Work Zone Numbers...

- ~ 1000+ motorist fatalities
- ~ 40,000+ motorist injuries
- 100-120 worker fatalities
- Worker fatality rates 6x higher

Work zones cost $6 billion annually
How is Motorist Crash Risk Affected?

<table>
<thead>
<tr>
<th>Condition</th>
<th>Daytime</th>
<th>Nighttime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Zone Active, Lanes Closed</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Work Zone Active, No Lanes Closed</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Work Zone Inactive, No Lanes Closed</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>
How are Crash Costs Affected?
Work Zone Active, No Lanes Closed

Increased Crash Costs per 100 Work Hours per Mile of Work Zone

Freeway AADT

Daytime

Nighttime
Work Zone Inactive, No Lanes Closed

Increased Crash Costs per 100 Hours of Work Zone Inactivity per Mile of Work Zone

Freeway AADT

Daytime

Nighttime
Cost Reduction Strategies

- Reduce frequency and duration of work zones
- Reduce traffic demand using work zones
- Implement crash mitigation strategies
Reduce Work Zone Frequency and Duration: Daytime

<table>
<thead>
<tr>
<th>Roadway AADT</th>
<th>Work Zone Active with Temporary Lane Closures</th>
<th>Work Zone Active without Temporary Lane Closures</th>
<th>Work Zone Inactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>$0</td>
<td>$5,000</td>
<td>$0</td>
</tr>
<tr>
<td>50,000</td>
<td>$5,000</td>
<td>$10,000</td>
<td>$5,000</td>
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<tr>
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<td>$10,000</td>
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<tr>
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<td>$25,000</td>
<td>$30,000</td>
<td>$15,000</td>
</tr>
<tr>
<td>200,000</td>
<td>$35,000</td>
<td>$45,000</td>
<td>$20,000</td>
</tr>
<tr>
<td>250,000</td>
<td>$50,000</td>
<td>$65,000</td>
<td>$25,000</td>
</tr>
</tbody>
</table>

Additional Crash Costs per 100 Hours per Mile

Graph: Additional crash costs for different levels of roadway AADT for work zones active with temporary lane closures, active without temporary lane closures, and inactive.
Reduce Work Zone Frequency and Duration: Nighttime

![Graph showing additional crash costs per 100 hours per mile versus roadway AADT for different work zone statuses: Work Zone Active with Temporary Lane Closures, Work Zone Active without Temporary Lane Closures, and Work Zone Inactive.]

- **Work Zone Active with Temporary Lane Closures**
- **Work Zone Active without Temporary Lane Closures**
- **Work Zone Inactive**
For More Information...

- NCHRP 627, Traffic Safety Evaluation of Nighttime and Daytime Work Zones


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